FEB 11 1947

Paper TRADE JOURNAL

REG. U. S. PAT. OFF.

VOLUME 124, No. 6 FEBRUARY 6, 1947

Established 1886

WOOD PULP

G

"The refusal to be content with half measures, the striving for perfection which characterizes us as a nation will keep us on the road of progress."

EDDIE V. RICKENBACKER

It is no small part of the genius of America that industry is never satisfied, that new goals are always being envisioned — and achieved.

It is this unceasing desire to make a better product today and an even better one tomorrow, that has been such an important factor in giving the United States its undisputed No. 1 position as supplier to the world. . . . And it is this same spirit of constant application and endeavor that has animated our company throughout its sixty-year span.

GOTTESMAN & COMPANY

— INCORPORATED —

WOOD PULP

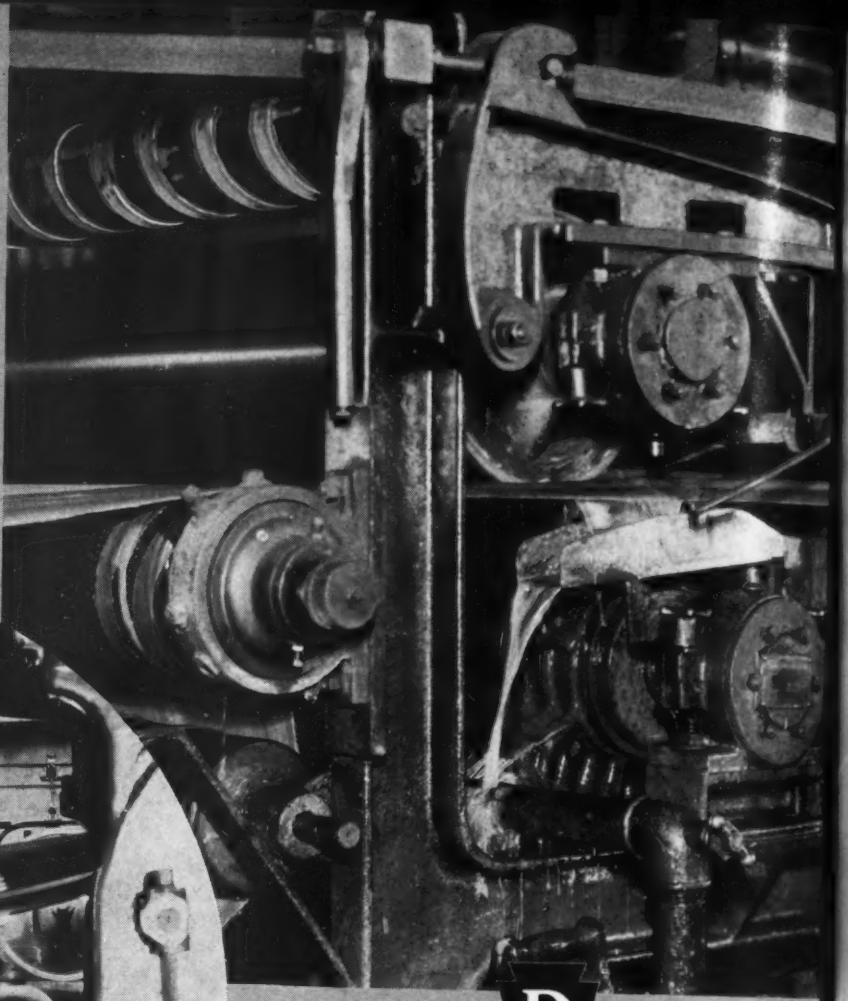
22 EAST 40th STREET · NEW YORK 16, N. Y.

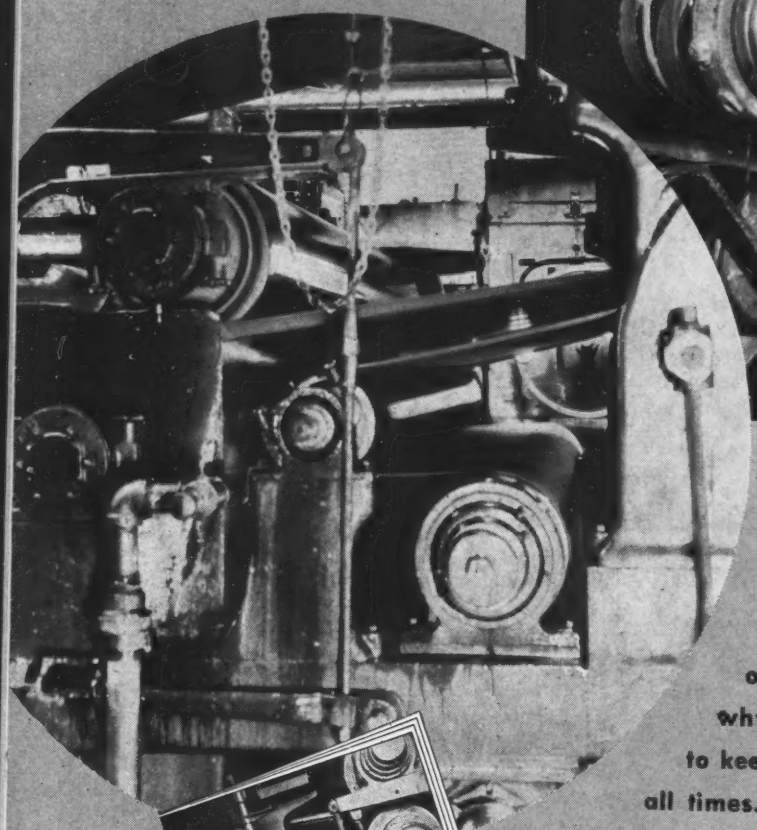
EUROPEAN OFFICES: Birger Jarlsgatan 8, Stockholm, Sweden

75th ANNIVERSARY

Continuous Full Width Cleaning

of Press and Pick-up Felts





NEW CATALOG WRITE FOR IT TODAY

D

The "suction without friction" operating principle of the Downingtown Suction Felt Roll prevents the felt nap from being worn off, ironed or matted down. This is the reason why the roll can safely be operated continuously, to keep the full width of the felt clean and open at all times. Some users found it possible to use a finer felt for a longer time, thus improving finish with economy. Over 200 now in use.

DOWNINGTOWN MFG. CO., DOWNINGTOWN, PA.

DOWNINGTOWN

Designers & Builders
Paper Making Machinery

IN THIS ISSUE

FEBRUARY 6, 1947

Midwest Trade Banks on Cooperation 7
Canada's Newsprint Mills Promise 200,000 Tons More for 1947 7
Foley Sees Demand Pressing Output 10
Krueger Named Head by Paper Group 10
St. Regis Discloses Plans for 2 Mills 12
Fox River Valley Increases Wages 12
McEwan Mill Passes to Desiderio Hands 12
Financial News 14
Buying Spree Follows Abitibi's Refinancing ... 14
Weather Holds Back Box Car Movement 16
Organize to Utilize Forestry Wastes 16
Obituary 17
Convention Programs Full of Interest 17
Imports 21
Trends 22
Prices 24
Markets 25
Moore & White Plan New Product Line 28
Gurley Permeometer Tests Air Permeability .. 28
In Part 30
Production Ratio Report 30
Editorial 31

Technical Section *("TAPPI")*

Elimination of Lime Stack Losses with the Type N Roto-clone 33
TAPPI Annual Meeting Program 37
Index, Technical Section, Paper Trade Journal, Volume 123, July to December, 1946 41

PAPER TRADE JOURNAL IS INDEXED IN INDUSTRIAL ARTS INDEX

INDEX TO ADVERTISERS ON PAGE 60

Volume 124 **Number 6**

Paper TRADE JOURNAL
REG. U. S. PAT. OFF.

Executive and Editorial Offices: 15 W. 47th St., New York 19, New York
Published Every Thursday by Lockwood Trade Journal Co., Inc.

GEO. E. LOCKWOOD, *President & Treasurer* ARTHUR E. GORDON, *Vice-President* JOSEPH P. HORGAN, *Secretary*
W. L. COOK, *Editor* • HARRY I. JENSEN, *Assistant Editor* • R. G. MACDONALD, *"TAPPI" Editor* • F. B. GROSSE, *Make-Up Editor*

Eastern Representatives

BRUCE E. BROWN
15 W. 47th St., New York 19, N. Y.; Phone BRyant 9-0860

EDWARD H. DOERING
15 W. 47th St., New York 19, N. Y.; Phone BRyant 9-0860

Pacific Coast Representatives

ROY M McDONALD & CO.
San Francisco, 4, Cal., 564 Market St.;
Los Angeles, 6, Cal., 1323 Venice Blvd.; Seattle, 1, Wash., 1411 Fourth Ave.

Mid-Western Representatives

H. K. VINTON
123 W. Madison St., Chicago 2, Ill.; Phone: RAndolph 4780

FRANKLYN H. OLSEN
P. O. Box 52, Cleveland 21, Ohio; Phone: Hillcrest 1124-W

Representative for Denmark, Norway, Sweden and Finland

OXFORD TRADING AKTIEBOLAGET
Bibliotekgatan 6-8, Stockholm, Sweden

Subscriptions: (Payable in advance) By the year, $5.00; Single Copy 15 cents. *Postage Extra: To Canada, $2.00; To Other Foreign Countries, $3.50.*
Member Audit Bureau of Circulations.

PAPER *established Feb. 17, 1899, combined with* PAPER TRADE JOURNAL *Nov. 16, 1899,* PAPER *established Sept. 21, 1910, combined with* PAPER TRADE JOURNAL *Feb. 19, 1926.*

All rights to the above titles reserved.

PAPER TRADE JOURNAL *is entered as Second Class matter at the Post Office at East Stroudsburg, Pa., under Act of Congress of March 3, 1879. Publication Office at Lockwood Trade Journal Co., Inc., 34 N. Crystal St., East Stroudsburg, Pa. Printed in U. S. A.*
Copyright 1947 by the Lockwood Trade Journal Company, Inc. The contents of PAPER TRADE JOURNAL *including all articles, illustrations, etc., are covered by copyright and may not be reprinted except by permission.*

CALENDAR OF COMING EVENTS

February 23-27, 1947—The American Paper and Pulp Association, Annual Meeting, The Waldorf-Astoria, New York City

February 24-27, 1947—Technical Association of the Pulp and Paper Industry, Annual Meeting, The Commodore, New York City.

February 25, 1947—New York Association of Dealers in Paper Mill Supplies, Inc., Annual Banquet, Hotel Commodore, New York City.

February 25, 1947—New York State College of Forestry Alumni, Annual Luncheon, Hotel Commodore, New York City.

March 31-April 1-2, 1947—National Paper Trade Association, Annual Convention, The Waldorf-Astoria, New York City.

May 22-24, 1947—American Pulp and Paper Mill Superintendents Association, Annual Convention, Edgewater Beach Hotel, Chicago.

Vanesta

A *NEW* Starch Stabilizer

R·T·VANDERBILT·CO·N·Y·
VANESTA
AMERICAN PRODUCTS

Stops Gelling

Improves Flow

Gives Uniform Consistency

Sample on request

R. T. VANDERBILT CO., INC.

230 Park Avenue, New York 17, N. Y.

Paper TRADE JOURNAL
REG. U. S. PAT. OFF.
VOL. 124, NO. 6 FEBRUARY 6, 1947

Midwest Trade Banks On Cooperation

CHICAGO—A growing feeling that the finest type of cooperation between paper manufacturers, salesmen and merchants would be necessary to bring the industry through 1947 without unfortunate public relations reactions, was expressed this week in the local paper market. Thus, near-future meetings of the industry in the East and regional conventions throughout the country, were considered as of high importance.

As far as business is concerned, offices here reported that advance sales reach far into the late Spring and that as far as they can see the trade is in for a sustained period of demand. Prices remain firm at the perfectly explainable higher level of prices but there continues to be a frequently expressed hope that the manufacturers will continue to thoroughly recognize the need for keeping prices within a range that will encourage rather than discourage the use for paper which has developed so sensationally during the war period. The industry, here at least, was obviously afraid of too great an expansion of paper production during the lush period and a lack of cohesion between all branches of the industry which would force a return to the "profitless prosperity" of not so long ago and of the price-cutting peddling of paper which, as one commentator put it, "was unworthy of an industry now grown into a position of great importance in the industrial world."

Accordingly, attendance at the NPTA meetings and regional meetings elsewhere during the year, will probably be good as a great industry, in a year of unparalleled opportunity and prosperity, plans to work together.

Southern Pulpwood Group Elects Jesse Armstrong

ATLANTA, Ga. — With more than a hundred delegates from all Southern states in attendance, the Southern Pulpwood Conservation Association held its annual meeting at Hotel Ansley, January 29, and voted to employ an additional area forester to supplement the work of the two foresters now engaged.

The association elected the following officers for the ensuing year: President: Jesse J. Armstrong, of Savannah; vice-president, Willis Penfield, of Tuscaloosa, Ala.; executive committee, T. W. Earle, of Savannah; W. J. Damtoft, of Canton, N. C., and Earl Porter, of Mobile, Ala.

Board of directors: Virginia, K. S. Trowbridge; North Carolina, J. H. Keener; South Carolina, J. H. Graham; Georgia, J. J. Armstrong; Florida, R. C. Brent, Jr.; Alabama, Willis Penfield; Mississippi, R. F. Westen; Louisiana, B. T. Young; Arkansas, Earl Porter; Texas, W. J. Damtoft. At large, Ed Hall, Florida; J. E. McCaffrey, South Carolina; and Ted Earle, Georgia.

Canada's Newsprint Mills Promise 200,000 Tons More For 1947

MONTREAL—Increased production in every phase of the Canadian pulp and paper industry is being planned for the next three years — including 200,000 tons more of newsprint in 1947 than last year's output — as indicated by R. M. Fowler, in his presidential address to the annual meeting of the Canadian Pulp and Paper Association; his forecast was based on a recent survey of the industry's actual and potential capacity. Increases in 1947 as against last year's figures planned in other branches of the industry are: 25,000 tons more fine, book and printing papers; 50,000 tons more paperboard; 70,000 tons more mechanical pulp and over 30,000 tons more chemical pulp. There will be further increases in these branches in subsequent years to meet further demands.

Mr. Fowler expressed the hope that in 1947 the industry could prove to all and sundry that "free enterprise" was not a mere slogan or catch-word, but that it was a living, positive, workable economic system founded on responsible freedom and vigorous enterprise. There was room, he said, for steady growth and development of Canada's present forest "producing units" through improved mechanical equipment, better management of resources, and imaginative marketing policies.

While admitting that the industry could not escape the effects of a stifling of international trade or a world depression, he thought that, short of these there was no reason why the industry should not continue indefinitely to supply its share of the expanded and expanding needs of the world for pulp and paper products by pressing forward on all fronts — in technical development, research, forest management, industrial relations, merchandising, and all the rest.

"I seem," declared Fowler, "to detect throughout the industry a feeling of insecurity about the present well-being of the pulp and paper business —a rather widespread belief that we have only a short period of sunshine in which to make hay. Such an attitude may have the advantage that it prevents a business man from becoming over-confident, but it has the great danger that he is likely to make decisions for short-range advantage rather than for long-range good.

Wisconsin Continues To Increase Staffs

MADISON, Wis.—Wisconsin paper and paper products firms continued to show increases in the number of workers employed during December, 1946, and in the total weekly payrolls, compared with the preceding month, according to the Industrial Commission of Wisconsin.

There were 27,000 employes, compared with 26,700 in November, 1946, an increase of 1.1%. Weekly payrolls for December averaged $1,258,000, compared with $1,237,000 the preceding month, or an increase of 1.7%. Average weekly pay per worker amounted to $46.56 for 44.4 hours, the hourly rate averaging $1.048.

In the Milwaukee metropolitan area 21 paper and allied products firms employed 2,495 workers, an increase of 2.7% in December, compared with November, while weekly payrolls totaled $112,736 up 1.6%. Average weekly earnings amounted to $45.18 for 45.8 hours, the hourly pay being 98.7 cents.

Horan Joins Southern Advance

BOSTON—Ralph R. Horan, formerly with Southern Kraft Corporation, on February 15 will join Southern Advance Bag & Paper Company, Inc., as district sales manager in the territory comprised of the States of Maryland and Virginia and the District of Columbia. C. E. Reams, who recently took over the Tennessee territory for Southern Advance Bag and Paper Co., Inc., will cover also the States of North and South Carolina.

"For what it may be worth, and possibly at some risk to my reputation as a prophet, I can say that I do not believe that a decline in the present fortunes of this industry is inevitable. I do not believe that history does, in fact, repeat itself. Events are determined by the combination of circumstances existing at the moment, and since circumstances vary from generation to generation it is illusive to suppose that any past pattern of history is likely to repeat itself.

"Circumstances and the course of development in this industry are different today to those existing in 1920. We have come through the war period and, despite many difficulties and problems, the Canadian pulp and paper industry is stronger today than it was at the beginning of the war. Its efficiency has increased; without great expansion of plant and machine capacity, productivity has materially increased through improved efficiencies. A recent survey by the Association of prospective capacity changes shows that practically every branch of the industry is planning substantial increases in production in 1947 over 1946.

"I believe, most sincerely, in the future of this industry. I think we have reached the time when forest holdings are no longer available for the support of completely new producing units. But there is room for steady growth and development of existing units through improved mechanical equipment, better management of resources and imaginative marketing policies. It is no doubt true that this industry cannot hope to escape the effect of either a world depression or a stifling of international trade. But, short of such calamities, I can see no reason why the present Canadian industry should not continue indefinitely to supply its share of the expanded and expanding needs of the world for pulp and paper products.

"If we are to do this, I suggest we must be active, ingenious and imaginative in pressing forward on all fronts —in technical development, research, forest management, industrial relations, public relations, merchandising and all the rest. We must, first and foremost, make our own operations the most efficient in the world.

"I hope we can do more than that. I feel that in our thinking and our actions, in common with other Canadian business men, we should give close attention to the nature of our institutions and our way of life. I feel that this greatest single segment of the Canadian economy should be in the forefront in thinking about and making work the system of economic life in which we believe. In common with other business men, I suspect we accept too thoughtlessly what one might call the happy phrases of the day — 'free enterprise,' 'democracy,' 'the Canadian (or American) way of life.'

"You can break down the process of reconversion into three main aspects—the first is the changes in the occupations of people, which may be called 'demobilization'; the second aspect is the changes in products produced, that is to say 'retooling'; and the third (and by far the most important) is changes in the mechanism by which economic decisions are arrived at or 'the recovery of freedom and enterprise.' The first two aspects — demobilization and retooling — have had much attention and are well progressed. In our industry most of our men are back from the armed services, and we had little or no problem of reconversion from wartime to peacetime products. The third aspect—the recovery of freedom and enterprise—calls for much more hard, constructive thinking than it has yet received. We do not realize how much our freedom was curtailed during the war, and how much of it still is withheld. Nor do we realize how much individual preparation and personal responsibility rests on those who seek to pick up a freedom that has been laid aside for years. It would be better withheld unless the recipient is prepared to exercise it with wisdom, moderation, and a sense of responsibility.

"That, I suggest, is the central problem of the year ahead—a year that is bound to be a critical one on which the course of future development will depend. I hope that this industry can show itself ready to receive a reconveyance of freedom. When Government controls are removed, I hope that individually the members of this industry can exhibit wise moderation and responsible merchandising policies —that they can achieve in freedom the legitimate objectives that government controls have sought to achieve. I hope also that we can show vigorous enterprise in all our operations — in expanded research, in study of the needs and service of old and new markets, in development of improved products, in the elimination of inefficiencies and waste. In a word, I hope that in 1947 this great industry can prove to all and sundry that "free enterprise" is not a mere slogan or catch-word, but that it is a living, positive, work-

(Continued on page 44)

Olsen in Ohio Post for Lockwood Papers

NEW YORK — Franklyn H. Olsen has been appointed to the advertising sales staff of the Lockwood Trade Journal Company, publishers of PAPER TRADE JOURNAL, Tobacco and Lockwood's Directory. From 1943 to 1945 Mr. Olsen served with General William Donovan's Office of Strategic Services as a Security and X2 agent in the China, Burma, India Theater under General Joseph Stilwell.

He has represented Hitchcock's domestic and export publications in Ohio and Pennsylvania territory since his release from the service in 1945.

Mr. Olsen will be located at 1414 Wilshire Road, Lyndhurst, Cleveland 21, Ohio.

FRANKLYN H. OLSEN

Calder's First Fifty Years Go Into the Record

NEW YORK — Louis Calder, fifty years to the day after he got the job of office boy in a paper outfit named Perkins-Goodwin Company and made good, received a group of his old friends and associates at his hunting lodge in Florida. This intimate gathering, on January 22, was climaxed by the presentation of an imposing hand-tooled book bound in red leather and lettered in gold, which Louis Calder's associates presented to their leader as an expression of their esteem.

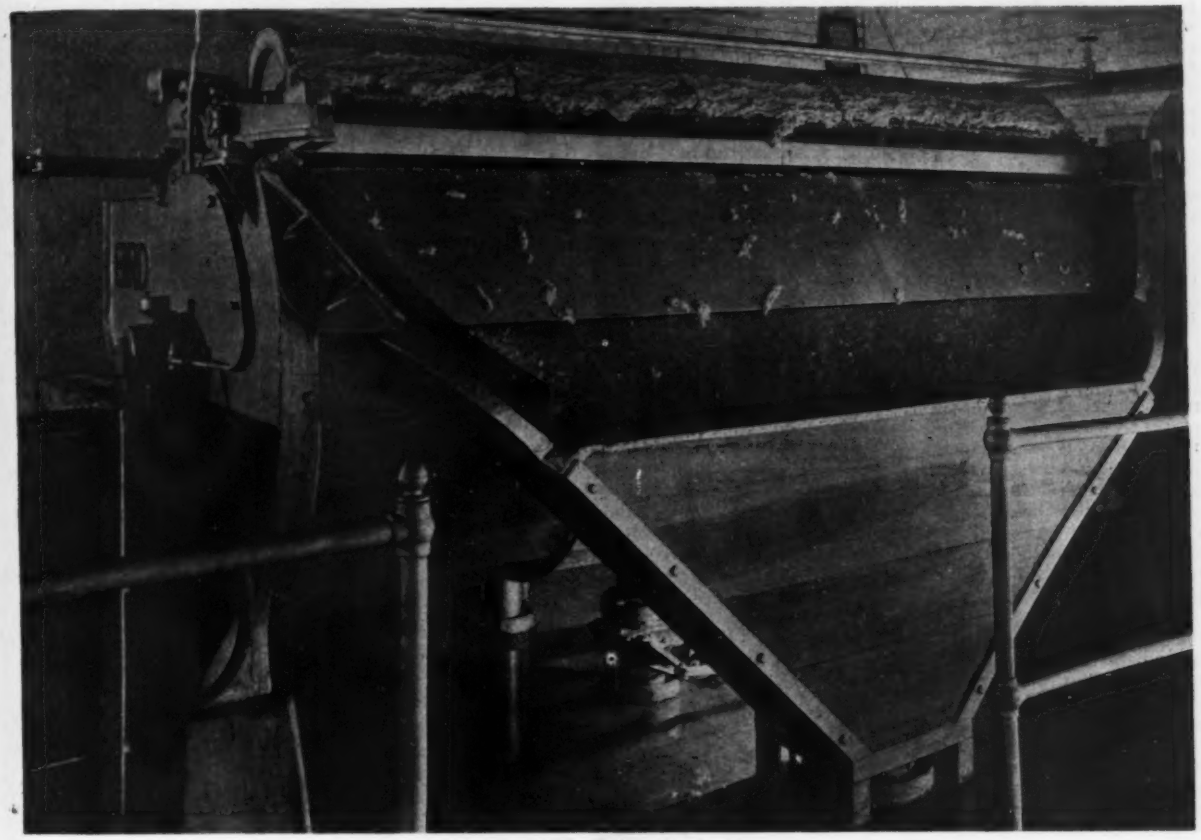
The book contained thirty letters of men who had known Lou Calder intimately down through the years. There were personal letters paying tribute to the half-century of service which Mr. Calder had rendered Perkins-Goodwin, his industry, and his country. It bore a title reminiscent of the privately printed book issued a few months ago covering the century of growth of Perkins-Goodwin, which was titled "The First 100 Years — Perkins-Goodwin." This book of thirty letters was entitled "The First 50 Years—Louis Calder."

S. A. Upham Reelected By Brownville Paper

BROWNVILLE, N. Y.—Directors and officers of the Brownville Paper Company were reelected at the Annual Meeting of Stockholders and the Board of Directors on January 21st.

Directors are: S. A. Upham, R. L. Pease, S. M. Jones, J. H. Lingenfelter, A. L. Soper and A. W. Horr. Reelected officers include S. A. Upham as Chairman of the Board, R. L. Pease, President; S. M. Jones, Vice President; J. H. Lingenfelter, Treasurer; A. L. Soper, Secretary; A. W. Horr, Assistant Secretary and Treasurer.

HERE IS ONE SOURCE OF GOOD PAPER-MAKING FIBRES THAT YOU SIMPLY CANNOT AFFORD TO OVERLOOK



THE BIRD SAVE-ALL

for recovery of stock from waste water at lowest net cost per ton

Why not get Bird engineers to go over your white water system with you and see if they have any recommendations to make. They have laid out more stock recovery systems than all others combined.

BIRD MACHINE COMPANY

SOUTH WALPOLE • MASSACHUSETTS

Foley Sees Demand Pressing Output

VANCOUVER, B. C. — Demands for pulp and paper during the coming year will continue to exceed the industry's capacity to produce in the opinion of Harold S. Foley, president of the Powell River Company. Mr. Foley stated the 1947 outlook for his own company, which operates the largest single unit pulp and paper plant in North America, points to even greater opportunity for improvement and to enlarged expansion activity.

"The maximum capacity of production ability in our firm will depend entirely on sound relations between labor and management," said Mr. Foley.

In reviewing accomplishments of the past year, officials expressed satisfaction in successfully achieving their main objective of reinstating of employees who had enlisted. Of all Powell River Company employees who joined the services from Powell River and have returned claiming their reinstatement, 100 percent have been re-established in employment. They have received full credit in promotions during their absence, exactly as if they had been working in the plant.

Technical research has advanced to the degree where it is possible to bring back to the province many young scientists, who, upon graduation from the University of British Columbia, were previously forced to seek work elsewhere. Powell River has led the way in pulp mills in encouraging research work on utilization of waste products, and providing new methods of production.

Another objective accomplished during the year was the improvement of the position of all employees. It is felt that the increase in average monthly earnings in the past decade has been impressive, and in 1946 this trend was continued with average monthly pay per employee rising to $199.

The main 1946 objective, which came under the heading of construction, was the new $1,800,000 hydraulic barker mill, first of its kind to be installed in the British Empire. This new mechanism for shearing logs of their bark is estimated to save sufficient pulp wood this next year to provide newsprint for all B.C. papers until 1949.

Despite an abnormal situation in the logging industry in 1946, the company recorded the greatest output in its history. This was not only in excess of the 1945 output but considerably more than the objective set at the beginning of 1946.

An important step forward in forest conservation was made last year. In cooperation with the Comox Logging Company and the Provincial Forest Service, the Powell River Company conducted a wartime experiment to determine practicability of using wood, previously burned or left to rot on logged-off lands, for use in making paper.

Construction projects completed since the end of the war included dredging of the log pond to increase its storage capacity. This was improved by 60 percent.

The old government wharf below the golf course in Powell River was purchased by the company, and a new wharf built to handle the increasing volume of shipping from the port. It is expected to be used for shipments from the new mill.

Powell River's new medical clinic opened in February, and was another milestone in the company's 1946 progress. The clinic, erected by the company and rented to the medical staff, serves to augment the fully-equipped employees' hospital built in 1940.

Company officials and departments have given precedence to problems of providing job training and facilitating housing programs. The company donated land for houses, made lumber available at reduced cost, and detailed a government expediter to help independent home builders in the district obtain priority materials.

Judging from the progress made in the past year, the prospect for 1947 is promising for both the Powell River Company and its employees.

Bulkley, Dunton Opens Connecticut Warehouse

NEW HAVEN, Conn.—The establishment of a new warehouse in New Haven, and the expansion of the company's service facilities in Southern Connecticut was announced by Bulkley, Dunton & Co., Inc., paper distributors. The new warehouse and the enlarged sales offices are located at 692 Campbell Avenue, West Haven, Conn. William A. Rutz, long associated with Bulkley, Dunton will continue as manager of the New Haven branch. He will be assisted by Kenneth Weissbrod and their staff.

Bulkley, Dunton's other New England branches are located in Boston and Springfield, Mass., and with its affiliated concern, the Carter, Rice and Co. Corporation, the company now has the most extensive distribution network in New England, with offices in Boston, Springfield, Worcester, Providence, New Haven, Hartford, Augusta, Montpelier and Syracuse.

Marathon of Canada Promotes Ross and Anderson

MARATHON, Ont. — Grant D. Ross has been appointed mill manager of Marathon Paper Mills of Canada. Mr. Ross, who was employed in May 1943 as chief engineer and has carried those duties until this month, is the second oldest employee of the mill and townsite division. Kenneth Anderson has been appointed resident engineer for this company. He was employed in August, 1944, as assistant chief engineer.

Krueger Named Head By Paper Group

NEENAH, Wis.—Henry C. Krueger, planning director of the Fox River Paper Corporation, Appleton, was elected president of the Wisconsin Paper Group during its annual meeting following a luncheon Saturday afternoon, January 25, at the Valley Inn. He succeeds Adam C. Remley, general sales manager of the Nekoosa-Edwards Paper Company, Port Edwards, who presided at the meeting.

W. L. Thornton, Jr., general traffic manager of Kimberly-Clark Corporation, Neenah, was elected vice-president, succeeding Mr. Krueger. Leo O. Schubert, secretary-treasurer of the Neenah Paper Company, was reelected secretary-treasurer. He was given special recognition "for his conscientious, continuous and valued services as treasurer of the Group for the last thirteen years."

The following were reelected to the executive committee: C. W. Hoeper, Badger Paper Mills, Inc., Peshtigo; H. D. Wake, Consolidated Water Power and Paper Company, Wisconsin Rapids; R. J. Sund, Marathon Corporation, Menasha; Roy H. Purdy, Tuttle Press, Appleton; A. J. Schierl, Whiting-Plover Paper Company, Stevens Point, and A. C. Remley, retiring president who serves automatically for an additional year.

Newly elected to the executive committee: E. C. Hilfert, general manager of the Riverside Paper Corporation, Appleton, and Carl Magnus, vice-president of the Wausau Paper Mills Company, Brokaw. Irwin Pearson, Neenah, executive secretary, was retained in the same capacity.

Sixty-five executives of the 29 members mills throughout Wisconsin attended the meeting. The Group is a non-profit organization to provide pool carload deliveries to customers of Wisconsin paper manufacturers and converters. It has offices and a warehouse at 411 Garfield avenue, Neenah.

Mr. Schubart and Mr. Pearson read reports indicating that despite embargoes and shortages of empty boxcars, the Group has consistently maintained its dated pool car schedule throughout 1946. Arrangements were made for the movement of nearly 3,000 pool cars of paper and paper products to 304 cities throughout the United States.

An address on "Education Takes Inventory" was given before the Group by Dr. Clark Kuebler, president of Ripon College, Ripon, Wis. He was introduced by S. N. Pickard, Neenah.

Bartlett Heads Red Cross Group

BUFFALO, N. Y.—Edwin R. Bartlett, president of the Hooker Electrochemical Company, has been named chairman of the corporations gifts division for the Red Cross fund campaign which opens in March.

It's in . . .

mother's magazine

Johnny's cookie

doctor's gloves

Calcium Carbonate. And quite possibly it's Wyandotte Precipitated Calcium Carbonate.

Wyandotte Precipitated Calcium Carbonate, as a pigment, makes possible high-grade *coated paper.*

This chemical is increasingly in demand by makers of *baking powder* for its calcium-enrichment properties.

Wyandotte Precipitated Calcium Carbonate is the best reinforcing agent known for many *rubber* products—lending tensile strength and tear resistance to rubber goods, including gloves, hospital sheeting and hot-water bottles . . .

This versatile product has many other uses in such diverse fields as plastics, dentifrices, polishes and pharmaceuticals . . .

If you have a food-enriching, pigmenting, mild abrasive, reinforcing or extension problem, Wyandotte Chemicals Corporation invites you to consult them about the adaptability of Wyandotte Precipitated Calcium Carbonate to your purposes.

Wyandotte
REG. U. S. PAT. OFF.

WYANDOTTE CHEMICALS CORPORATION
WYANDOTTE, MICHIGAN • OFFICES IN PRINCIPAL CITIES

Soda Ash • Caustic Soda • Bicarbonate of Soda • Calcium Carbonate • Calcium Chloride • Chlorine Hydrogen • Sodium Zincates • Aromatic Intermediates • Dry Ice • Other Organic and Inorganic Chemicals

St. Regis Discloses Plans for 2 Mills

NEW YORK—Business and industrial leaders in Kalamazoo, Mich., and Bucksport, Me., recently welcomed visiting officials of the St. Regis Paper Company and Time, Inc., during an inspection tour of mills recently purchased by St. Regis in those cities.

In Kalamazoo, St. Regis has taken over ownership of the Bryant Paper Company, while in Bucksport it now owns the Maine Seaboard Paper Company, both formerly owned by Time, Inc.

At a dinner on the evening of Jan. 21 representatives of business, industry, and the city government of Kalamazoo applauded Roy K. Ferguson, president of the St. Regis Paper Company, for his statement that the company would assume its full community responsibility instead of acting as an "absentee landlord."

Mr. Ferguson said that it was the aim of the company not only to make a highly important unit of the Bryant plant in the St. Regis organization but also to "bring something permanent to Kalamazoo, to take part in the paper industry's life in the valley, and to recognize our responsibility not only to our employes and customers but to all phases of the community's life."

In Bucksport, Me., officials of St. Regis revealed during their visit on January 14 that "ultimately a machine coater will be added at the mill, which will make possible the production of highgrade coated paper." The Bucksport mill, main industry in the city of three thousand population, is currently producing magazine paper in addition to newsprint. However, present plans call for almost complete discontinuance of newsprint production at Bucksport this year.

In addition to Mr. Ferguson, representatives of St. Regis who visited the two mills included: Lyman A. Beeman, vice-president; Joseph A. Quinlan, vice-president and traffic manager; William H. Versfelt, treasurer; Willard J. Dixon, vice-president and secretary; Edward G. Murray, executive vice-president of the St. Regis Sales Corporation; Kenneth D. Lozier, vice-president of the sales corporation; and H. R. Lamb, St. Regis director and attorney. H. E. Machold, a St. Regis director, toured the Bucksport mill only.

Time, Inc., was represented by Roy S. Larsen, president; Charles L. Stillman, vice-president and treasurer; and Maurice T. Moore, chairman of the board, on both tours. Members of the Time, Inc., board of directors joined the other officials for the Kalamazoo trip.

St. Regis Creates New District For Multi-Wall Bag Sales

ALLENTOWN, Pa.—St. Regis Paper Company, New York, reported this week the formation of a new sales district in its multiwall bag division, effective February 1. For the present, the district will cover the State of Pennsylvania, with the exception of the city of Philadelphia. The new district, to be known as the Mid-Atlantic District, will have its headquarters in Allentown, and will be under the supervision of Burton A. Ford, vice-president of the St. Regis Sales Corporation.

Mr. Ford will continue his close contact with the lime and fertilizer producers, and will represent the St. Regis Paper Company and the St. Regis Sales Corporation at the periodic meetings of these industries. Other St. Regis multiwall bag sales districts have headquarters in New York, Baltimore, Chicago and San Francisco.

McEwan Mill Passes To Desiderio Hands

WHIPPANY, N. J.—All stock interests in the McEwan Paper Mills was sold last week to Anthony J. Desiderio. The holdings include mills, the Eden Mill in Eden Mill road just off the Morristown-Whippany turnpike, and the other 700 yards north of Route 10 in the Malapardis section. Desiderio is president of three other paper concerns, two in this state and one in Pennsylvania, which he owns jointly with his six brothers.

The deal is believed to have been one of the largest single sales ever recorded in this area, but the figures remain undisclosed. It is generally accepted the sum involved runs well into seven figures.

By virtue of the purchase, the Desiderio-owned box mills now increases to five, with three of them located here. Beside the two annexed in this sale, the purchasing family is also the owner of the Whippany paper board plant in Route 10, one located in Clifton and named after that town and the other at Reigelsville, Pa., which operates under the name of the Durham Paper Board Co.

SAPEYES Look to New York Meeting

CHICAGO—The western division of the Salesmens Association of the Paper Industry, according to vice-president Eddie Edwards of the Howard Paper Company, plans no special meetings of any kind for February. All effort is being concentrated on getting a good attendance at the annual meeting of both the industry and the SAPEYES to be held in New York City the last week in February.

The Salesmens Association of the Paper Industry will resume its annual luncheons at that time, the first annual luncheon since before World War II. No special chairman has been designated to spur attendance but reports are that many salesmen will make the trip.

Fox River Valley Increases Wages

APPLETON, Wis.—Increases in wages at three Fox river valley paper mills were announced last week.

Members of two unions at Northern Paper Mills, Green Bay, voted Sunday, January 26, to accept a general wage boost of four cents per hour across the board, plus an additional four-cent shift differential for the two night shifts, it was reported by Emil A. Noren, regional director of the International Brotherhood of Papermakers. The other union involved was the International Brotherhood of Pulp, Sulphite and Paper Mill Workers, both being in the AFL. The increases were made retroactive to January 1. Mr. Noren and Willington W. Meyers of the Paper Mill Workers assisted the local unions in the negotiations.

Including the raise, base rates for male workers amount to $1.02 per hour and 91 cents for women. There is a seven-cent differential in favor of the two night shifts.

The Bergstrom Paper Company announced January 27 that the wage rate for all employes is being raised five cents an hour, effective immediately. Both male and female workers are affected. Most of them are on a 48-hour work week.

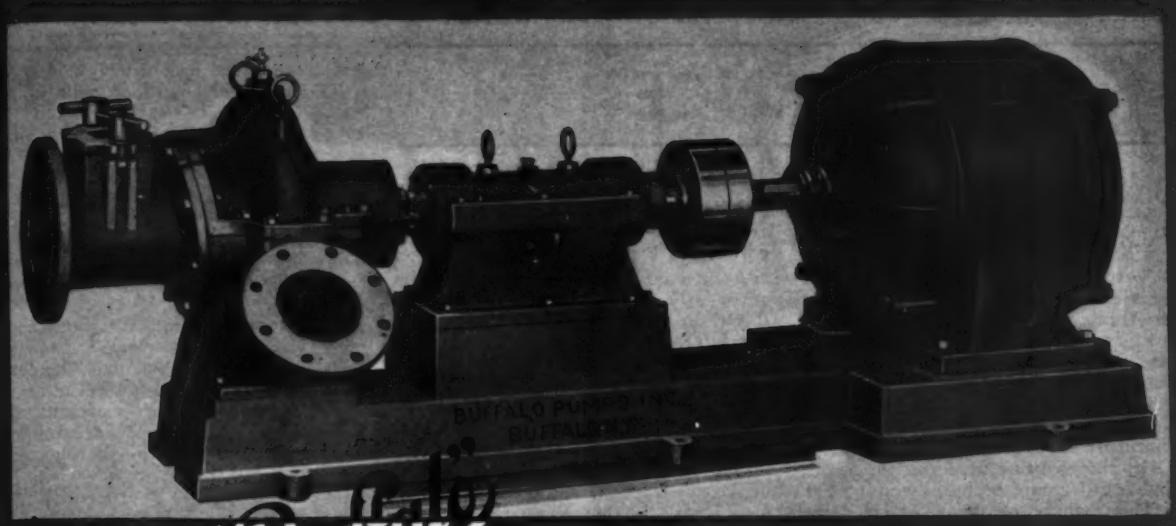
All hourly rated employes of the Riverside Paper Corporation, Appleton, were due to receive a general wage increase of six cents per hour, effective February 1.

The increase follows negotiations between the company and District 50, United Mine Workers, which represents the company's employes. Adjustments also were agreed upon for tour workers, Mr. Hilfert said.

Hinde & Dauch Completes Plant In Watertown, Mass.

WATERTOWN, Mass.—Hinde & Dauch Paper Company, manufacturer of corrugated shipping boxes and packing materials, is now installing new equipment in its newly-erected plant at Watertown. The building is of concrete, brick and steel construction, 200 by 700 feet. It consists of a two-story office and a one-story box plant, with a storage basement 90 by 200 feet.

S. K. Taylor, district manager for Hinde & Dauch, recently reported that the moving of equipment from the old plant in Allston had been completed. As soon as the pent-up demand for consumer goods has been taken care of, the new materials and packaging techniques developed during the war in the laboratories of the company will be aggressively promoted. These include egg cases, fruit and vegetable boxes, heavy-duty containers for shipment of steel couplings and similar products and insulated boxes for transporting pre-cooled sea foods by air cargo.



THIS "Buffalo" STOCK PUMP Likes High Heads!

Here is a pump with all the heavy service construction of the famous Buffalo Split-Shell line, —an ideal pump for relatively high head jobs. Operating at relatively low speeds, when working against higher pressures, these pumps use the rotor design as the diagonally split type.

For servicing, the suction piece is easily removable without disturbing alignment of suction or discharge piping.

If you have need of a "high-head" pump to stay on the job, write us today for Bulletin 953-F, which gives all engineering data.

BUFFALO PUMPS, INC.

159 Mortimer St. Buffalo, N. Y.

Canada Pumps, Ltd., Kitchener, Ont.

NON-CLOGGING!

Above is shown one of the impellers used in Buffalo Stock Pumps. Enclosed impeller construction keeps wear and wedging to a minimum, allowing full capacity operation with initial high efficiencies, all without depending on close-running clearances. Note the large inlet; heavy, rigid back plate and flanges, few vanes . . . reasons why "Buffalo" pumps are handling stocks of above 6% very satisfactorily.

"Buffalo"

HORIZONTALLY SPLIT-SHELL
SINGLE SUCTION
PAPER STOCK PUMPS

FINANCE

Buying Spree Follows Abitibi's Refinancing

TORONTO — What is said to be the heaviest buying spree in over a year in Abitibi Power and Paper Company preferred and common shares followed last week's announcement of the refunding of $53,039,700 outstanding 5 percent bonds by the company. During the week ending January 24th, 71,499 shares of the preferred stock, at $1.50; 1,410 shares prior preferred at $2.50; and 24,581 common shares were traded.

This splurge of buying carried the prior preferred to $41 and the $1.50 preferred to $21 5/8 a share. The common stock touched $20 1/8 a share at one stage of the trading, but never quite caught up with the $22 3/4 price of last June.

The strength shown by the preferred reflects the anticipated clearing of the way for the payment of preferred dividends as soon as the old bonds have been paid off on April 1, 1947, subject to the provisions of the new trust deed.

Arrangements have been made with Wood, Gundy & Co. for a new issue of $45 million first mortgage 3½ percent bonds of which $10 millions will be 10-year serial bonds due $1 million a year and $35 million will be 20-year bonds, the proceeds to be used for the refunding of the outstanding five percent bonds of the company. The selling price of the serial bonds has not yet been announced, but the 20-year bonds will be offered at par. The balance required for refunding the $53,093,700 outstanding bonds will come from the company's cash resources, according to President D. W. Ambridge.

Annual interest requirements will be cut nearly 41 percent as a result of this refunding. It means that the present interest of $2,654,685 will be cut to $1,575,000. This interest saving, before considering income tax on it, is equivalent to the dividend on the prior preferred, plus 68 cents of the $1.50 preferred dividend.

One of the benefits to shareholders of Abitibi from the refunding arrangements will be the elimination of the restrictions against the payment of dividends until certain provisions regarding the bonds are carried out. The new issue will have a provision that no reduction of capital may be affected and no dividends paid which would reduce working capital below $12.5 million, or which would reduce the consolidated earning surplus as at Dec. 31, 1946. Despite these limitations, the payment of preferred dividends is believed likely in financial circles before the year is out, perhaps by mid-summer.

After using $8 million cash in the refunding to reduce debt charges, working capital will still be over $3 million above the $12.5 million minimum based on the Dec. 31, 1946, figure, it is understood.

With operations still running at capacity, current earnings are believed to be more than sufficient to cover preferred dividend requirements. The dividend requirement for the prior preferred is $125,000 and for the $1.50 preferred $2,092,908.

The new issue will also require certain sinking fund payments. In the first 10 years $1,250,000 of bonds shall be retired each year, including $1 million of serial bonds. In the next 10 years $1 million will be required. In addition, an amount equal to 15 percent of net earnings after interest for depreciation and taxes will be retired for the first 10 years and 10 percent for the last 10 years.

When the refunding has been completed, in addition to clearing the way for the payment of dividends, the company will no longer have to elect seven Class A directors to represent the bondholders. All future directors will be elected by vote of the shareholders.

International Retires Last Of Its Bank Loan Mortgages

NEW YORK — All collateral pledged under International Paper Company's $20,385,000 secured serial 2 percent bank loan has been released and all mortgages against its properties, except minor purchase money liens, are being discharged, it was announced by John H. Hinman, president. The company paid off $2,385,000 of the old loan and replaced the balance with $18,000,000 new unsecured 2 percent notes, maturing in varying semi-annual installments through December 31, 1956.

Collins Elects Scott

PHILADELPHIA—The A. M. Collins Manufacturing Company on January 30 elected John D. Scott vice-president of the company.

FINANCIAL RECORD OF THE WEEK

New York Stock Exchange

High, Low and Last for Week Ending February 1, 1947

STOCKS

	High	Low	Last
A. P. W.	5⅛	5⅛	5⅛
Armstrong Cork Co.	52½	49¼	52½
Celotex Corp.	31	29⅞	30⅝
Celotex Corp., pf.	20⅝	20½	20⅝
Certain-Teed Products Corp.	20⅜	18⅞	20⅜
Certain-Teed Products Corp., pf.	....	....	....
Champion Paper & Fibre Co.	24⅛	23⅝	24⅛
Champion Paper & Fibre Co., pf.	110½	110⅛	110½
Congoleum Nairn Co.	30	27	30
Container Corp. of America	45¼	42½	45
Crown-Zellerbach Co.	30⅞	30	30¼
Crown-Zellerbach Co., pf.	120	107½	120
Dixie Cup Co.	33¼	31½	33¼
Dixie Cup Co.—A	52¾	52¾	52¾
Flintkote Co.	36⅞	34½	36⅜
Flintkote Co., pf.	53	52¾	53
Robert Gair	7⅝	7⅞	7½
Robert Gair, pf.	20½	20	20
International Paper Co.	51⅜	48	50⅜
International Paper Co., pf.	104	104	104
Johns-Manville Corp.	134	132	133
Johns-Manville Corp., pf.	123	122	123
Kimberly-Clark Corp.	25	23¼	24⅜
Mac Andrews & Forbes	38	36⅜	38
Mac Andrews & Forbes, pf.	....	....	....
Marathon Corp.	27¼	26	27¼
Masonite Corp.	58¼	56	58¼
Mead Corp.	21½	18⅜	21½
Mead Corp., pf. 4¼	104½	103¾	104
Mead Corp., pf. 2	48	47	48
National Container Corp.	39¾	36⅜	38⅞
Paraffine Companies, Inc.	77	74	77
Paraffine Companies, Inc., pf.	....	....	....
Rayonier, Inc.	24½	22⅜	24⅛
Rayonier, Inc., pf.	36⅝	35¾	35¾
Ruberoid Co.	58	56	57
Scott Paper Co.	46	44	46
Scott Paper Co., pf.	99⅛	99	99
Sutherland Paper Co.	44½	43¼	43¼
Union Bag & Paper Corp.	32	30⅛	32
United Paperboard Co.	12⅜	12⅜	12⅜
U. S. Gypsum Co.	99⅞	93¾	99⅞
U. S. Gypsum Co., pf.	13¾	11⅜	13¾
West Virginia Pulp & Paper Co.	40	38¾	40
West Virginia Pulp & Paper Co., pf.	113	112⅝	113

BONDS

Abitibi Pulp & Paper Co. 5s '53	....	....	....
Celotex Corp. 3¼s '60	103⅛	103¼	103¼
Certain-Teed Products Corp. 5½s '53	....	....	....
Champion Paper & Fibre Co. 3s '65	104	104	104
International Paper Co. 5s '47	....	....	....
Mead Corp. 3s '66	....	....	....

New York Curb Exchange

High, Low and Last for Week Ending February 1, 1947

STOCKS

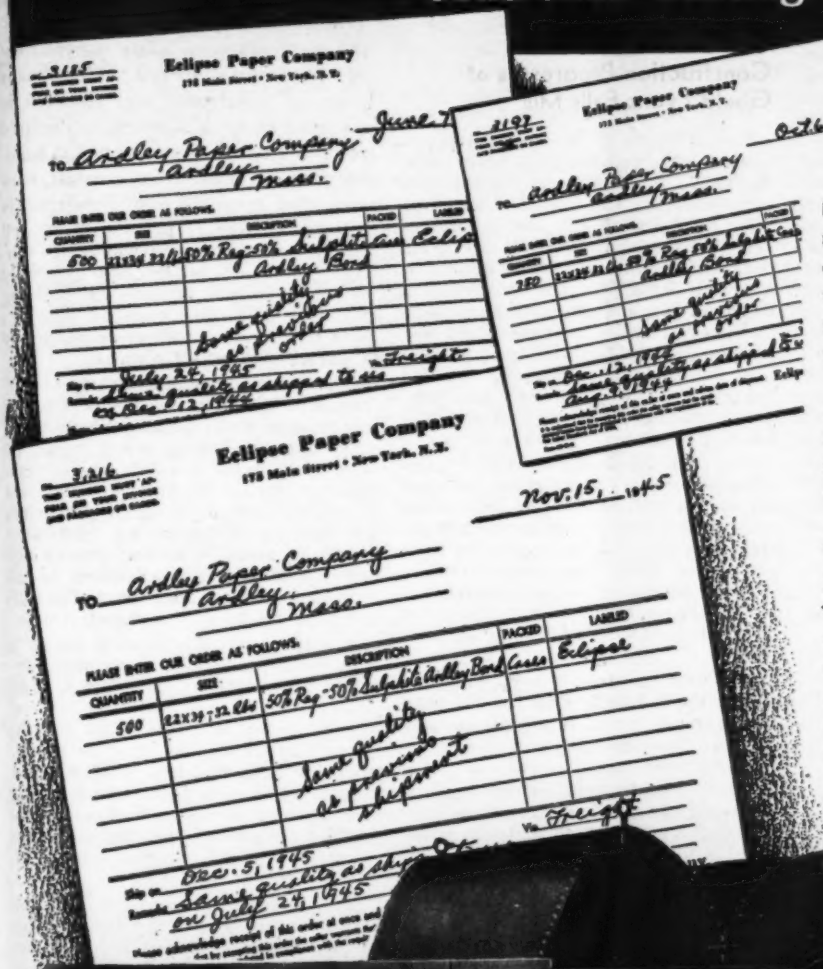
	High	Low	Last
Great Northern Paper Co.	42	40⅝	41¾
Hummel Ross Fibre Corp.	30½	28	30½
St. Regis Paper Co.	9¾	9	9½
Taggart Corp.	8½	8½	8½

BONDS

American Writing Paper Co. 6s '61	....	....	....

JONES-BERTRAMS PATENT BEATER

Controlled Beating Performance . . .



Postwar requirements will demand more rigid paper specifications. Paper distributors will want the same quality, when repeat orders are issued at various intervals of time.

Only with controlled beating can you be assured of fulfilling these demands from time to time.

With the Jones-Bertrams Beater, you can meet these requirements because it operates on an exact and controlled beating cycle thus reproducing stock characteristics batch after batch, day in and day out, and at any future time.

JONES-BERTRAMS PATENT BEATER

Jones

E. D. JONES & SONS COMPANY-PITTSFIELD, MASS.
Builders of Quality Machinery for Paper Mills

Weather Holds Back Box Car Movement

NEW YORK—Box car shortages are found to have assumed proportions of a threat. The American Newspaper Publishers Association made public late last week a statement being carried in its bulletin concerning the serious empty freight box car situation.

Recurring box car shortages it was found by the publishers in both the United States and Canada are being aggravated by heavy snows and freezing weather conditions in Eastern Canada, resulting in large increases in transit time and in some cases actual inability to locate cars of newsprint that have been shipped. The Canadian National Railway reports difficulty in keeping newsprint mills in the Lake St. John district supplied with box cars but advises it will permit no shutdown of the mills, even should it be necessary to take cars from other industries.

The use of the winter ports of Halifax and St. John by the Canadian National and Canadian Pacific Railways greatly increases the transit time of freight equipment, both loaded and empty, which has a disruptive effect upon the car distribution programs. Both lines report extra effort being made to discharge cars quickly as possible at these ports.

The Buffalo and Montreal-Rouses Point gateways are experiencing difficulty in exchanging cars with American connections on account of weather conditions. The CNR and CPR report unusually heavy northbound movements of coal contributing to the congestion. The southbound movement of newsprint paper has been interfered with by the same conditions and both lines are making strenuous efforts to return to normal schedules.

National Blank Book Advances R. M. Weiser

HOLYOKE, Mass.—Richard M. Weiser, manufacturing manager of the National Blank Book Co. and member of the Board of Directors, was elected secretary of the corporation at a meeting of the directors last week. He takes the place made vacant by the recent death of Atty. Clifford S. Lyon.

A native of this city, Mr. Weiser was educated in the local schools and was graduated from Cornell University in 1914 with a mechanical engineer's degree. First employed by the United Gypsum Co., he returned to this city in 1916 to take a position at the National Blank Book Co.

After the war he returned to the National and succeeded John W. Donovan as superintendent in 1926. Dur World War II he served as an industry panel member of the War Labor Board. Last fall he was promoted from general superintendent to manufacturing manager.

Mr. Weiser is a director of the Parsons Paper Company, a trustee of the Mechanics Savings Bank and vice-president of the Engineering Society of Western Massachusetts. He is a former president of the Lions club. In January, 1944, he was named to the board of directors of the National.

Construction Progresses at Gould Lyons Falls Mill

LYONS FALLS, N. Y. — Construction work for the rehabilitation program at the Gould Paper Company plant, subsidiary of the Continental Can Company at Lyons Falls, has progressed very satisfactorily in spite of being continually hampered by shortages of material. This program consists of a complete new finishing, storage, office, and general utility building which will provide modern facilities for receiving raw materials and shipping finished paper. Much of the work last year was preparatory to the erection of the building because of the difficult site.

The old Black River Canal goes through the plant site and the fact that the mill is built on a side hill presents considerable difficulty in securing proper foundations. The old canal has been completely filled and arrangements made to eliminate two railroad trestles and all the underground work done for fire protection system, damage and the like.

The new railroad trestle, which is eventually to handle coal for the new steam power plant, is completed and coal for the coming year has already been received.

The inside projects on the sulphite and groundwood stock systems are well under way and all material is on the job for the sulphite screen room with the tile rock chests and foundation work three-quarters completed.

Completion of the inside work for rehabilitating these stock chests is being done during the winter months so that the construction crew will be free to complete the finishing building and construct the new steam plant as soon as weather permits.

Plans Move Forward for Pulp Mill at Port Edwards

VANCOUVER, B. C. — Definite action towards the establishment of a $15 million pulp mill at Port Edwards, former United States army camp at Prince Rupert, B. C., has now been taken. While reports concerning the establishment of the new pulp and paper mill have been current for months, and in a more general sense for years, the Port Edwards Development Company has now been incorporated at Victoria under the B. C. Companies Act. It is understood the firm will purchase the big army development at Port Edwards from the War Assets Corporation as disposal of the property is in the hands of this Canadian government agency.

Organize To Utilize Forestry Wastes

MILWAUKEE, Wis.—A company is being organized here by Dr. F. H. Bowman, dentist, to manufacture building materials from waste material out of Wisconsin's forests. After many years of experiment and research in his small dental laboratory, he declared recently that he has perfected a building material made from sawdust, bark and other by-products of forestry. He believes that every paper mill as well as every lumber manufacturing concern should have its own specially equipped presses to turn out building material from the tons of sawdust, bark and scraps which are now largely a question of waste disposal.

Dr. Bowman began extensive experiments in 1931 with waste fibers which he thought could be adapted to building material. Among other things, he applied heat and pressure, using resin plastics for a binding material. He found that certain types of wallboards of varying strength and durability could be made from materials which are normally wasted. Because of the availability of sawdust, he confined his later efforts to that material.

He says that the pressed board is waterproof and is stronger than plywood. In quantity production, he estimates the cost to be about the same as plywood, or less. In addition, the pressed board can be used as a filler for two veneer sheets. This, he said, would result in a great saving in the manufacture of plywood. Floor board could be made of the pressed board overlaid with a hardwood veneer, according to Dr. Bowman.

The secret of the greater strength, Dr. Bowman said, is the fact that the meshed fibers extended in all directions, rather than merely at right angles to one another as in plywood. The pressed board can be painted, papered, metalled or can be used in a natural state, he added.

The Federal Housing Administration, to which Dr. Bowman submitted samples for tests, told him that the material is good and that it is wanted in large quantities.

Whitney Brothers Promote McLeod

BOSTON — Whitney Brothers, Inc., has appointed R. F. McLeod as sales manager of their frozen food packaging division. Mr. McLeod has been a member of the Sales Force for some time specializing in the sale of frozen food packaging supplies. He will work in cooperation with M. G. Jones, manager of the Division, and its representatives: E. R. Gillis, C. S. Horton, H. R. Gallup, W. R. Milliot, and W. J. Bigley, who is making a tour of the Southern States at the present time.

OBITUARY

Carl A. Thoms

SHELBYVILLE, Ind.—Carl A. Thoms, executive vice-president of Kennedy Car Liner & Bag Company, Inc., died January 26th following a heart attack. Mr. Thoms had been connected with the concern for more than thirty-six years and had been executive vice-president for the past twenty-five years.

At the time of his death he was fifty-four years old. He was a member of the executive committee of the Flexible Packaging Institute, and in addition to his many activities in this industry was active in local community affairs.

Walter E. Jackson

SAN FRANCISCO—Walter E. Jackson, credit manager of the San Francisco division of Blake, Moffitt & Towne, pioneer Pacific Coast paper distributors, died January 16 in San Francisco after an illness of several weeks. He was 63 years old.

Mr. Jackson was born in a rural English farming town where he spent much of his boyhood working as a bookkeeper and telegraph operator. In 1909 he came to San Francisco but shortly afterward returned to England for a vacation. When he again visited San Francisco in 1913, he joined Blake, Moffitt & Towne as assistant to the credit manager. In 1920 he was made credit manager, a position he held for 27 years. He had a wide acquaintance in northern California business and credit circles and for many years was active in the San Francisco Board of Trade.

He is survived by his widow, Mrs. Mary C. Jackson, and sister, Mrs. Jessie Clennan of San Francisco; two sisters, Mrs. C. Wright and Mrs. George Calow, and two brothers, Charles and George Jackson of England.

Appointed to succeed him as credit manager is Edward P. Cohan who has served as his assistant for the past two years.

Harry C. Hanson

NIAGARA FALLS, N. Y. — Harry C. Hanson, 72, former superintendent of the Certainteed Products Corporation, died recently at Memorial Hospital after a long illness. He retired two years ago. Mr. Hanson had been superintendent for 21 years of the Leon Mule Hide Roofing Company at Wilmington, Ill., operators of a large paper mill. Survivors include his wife, three daughters, two sisters and a brother.

Wisconsin Develops Process To Utilize Sulphite Waste

MADISON, Wis.—A process for converting paper mill wastes into industrial products has been developed by Reid Leonard and W. H. Peterson, biochemists at the University of Wisconsin. The process converts sulphite waste largely into lactic acid, a chemical used in making lacquer, tanning leather, processing certain foods, and for other industrial purposes.

About 285 pounds of lactic acid and 75 of acetic acid can be made from two thousand gallons of sulphite waste, the amount obtained from a ton of spruce wood pulp, the university declares. Mr. Peterson said that American paper mills dump six billion gallons of sulphite into rivers and lakes each year.

Mr. Peterson said the university has thoroughly tested methods of fermenting paper mill wastes to produce lactic acid, but that more work should be done on means of recovering the acid. He believes that trials on a pilot-plant scale are needed to iron out remaining problems and to determine the economy of the process.

The research project was supported by a Wisconsin paper manufacturer under an industrial fellowship agreement.

Smith Paper Reports Staff Promotions

LEE, Mass.—Ernesto A. Richardson has been appointed production manager at Smith Paper, Inc., and J. Ray Denton has been made assistant production manager. James J. Powers will manage the Eagle and Niagara Mills and Percelle W. Ayers has been retired. The changes were posted this week by Eliot C. Pease, personnel manager.

Richardson has been with Smith Paper since 1929 as chief chemist and later as assistant to the general manager. He is a graduate of Worcester Polytechnic Institute.

Denton has been with the local paper concern since November and formerly worked for Ecusta Paper Corporation, North Carolina. He recently returned from South America where he set up a paper mill. Powers has been associated with the Smith mills since 1906.

Quaker Waste Dealers Dine

PHILADELPHIA — The Philadelphia Waste Paper Merchants' Association held its banquet on Wednesday of this week at the Benjamin Franklin hotel. The banquet committee under the chairmanship of Benjamin French, Castle & Overton; George DiEnno, George DiEnno Co.; Louis Green, Hancock Paper Co.; Joseph Matusso, S. Mastusso & Co.; James K. Sullivan, Girard Waste Paper Co.; and James O'Neill, Patrick O'Neill & Co., had arranged a most elaborate program for the five hundred guests.

Convention Programs Full of Interest

NEW YORK — Publication this week of programs for the pulp and paper industry's two big annual events indicates that those who attend will find their time completely filled with meetings of compelling interest. The American Paper and Pulp Association, with its headquarters at the Waldorf-Astoria, and the Technical Association of the Pulp and Paper Industry, based at the Commodore, both have provided for a series of meetings in the week that begins with February 24, calculated to serve the interests of everybody in the paper industry. The former Association, as is customary, also has arranged to include in its program meetings for smaller group associations whose interest lies in specialized fields. The program for the Technical Association is printed on page 37 of this issue. That for the APPA follows.

American Paper & Pulp Ass'n. Preliminary Schedule of Meetings

February 23 – February 28, 1947

Waldorf-Astoria, New York, N. Y.

Sunday, February 23, 1947

THE TISSUE ASSOCIATION, INC.

5:00 P.M., Board of Directors
Carpenter Suite

7:00 P.M., Board of Directors—Dinner ..... *Carpenter Suite*

UNITED STATES PULP PRODUCERS ASSOCIATION

10:00 A.M., Executive Board Meeting *4-F*

1:00 P.M., Annual Luncheon
Jansen Blue Room

2:30 P.M., Annual Meeting
Jansen Salon

Monday, February 24, 1947

AMERICAN PAPER AND PULP ASSOCIATION

10:00 A.M., Pulpwood Committee *4 J-K*

9:00 A.M., Committee on Waste Utilization ..... *4 N-P*

2:30 P.M., Committee on Biological Control and Sanitation Policy Committee ..... *4 N-P*

2:30 P.M., Export Committee *4 J-K*

3:30 P.M., Committee on Coordination of Research *4-L*

3:30 P.M., Forestry Committee
Crane Room 4-V

BLOTTING PAPER MANUFACTURERS ASSOCIATION

12:30 P.M., Annual Luncheon Meeting *4-L*

COATED AND PROCESSED PAPER ASSOCIATION

10:00 A.M., Annual Meeting
Club Suite, Hotel Commodore

12:30 P.M., Industry Luncheon
Club Suite, Hotel Commodore

(Continued on page 26)

CALL MOORHEAD
FOR REBUILT ELECTRICAL EQUIPMENT

M-G SETS—ROTARIES (3 ph. 60 cy.)

300 KW G.E. Rotary 2 ped. brg. 6 ring.
200 KW West. 250 v.—300 HP West. Ind.
50 KW G.E. 125 v.—75 HP West. 220/440 v.
45 KW West. SK 125 v.—75 HP West.
15 KW Wotten 125 v.—25 HP Wotten 220
15 KW G.E. 250 v.—25 HP G.E. 220/440 1750
5 KW West. 125 v.—7½ HP F.M. 220/440
10 KW Bardco 125 v.—15 HP Master 220/440

A.C. & D.C. GENERATORS

1250 KVA West. A.C. 440/3/60 1200 RPM.
1—35 KW West. SK 250 v. 1050 RPM.
45 KW West. SK 125 v. 700 RPM.
75 KW West. S 250 v. 1000 RPM.
1000 amp. 60 volt Westgh. SK Welding Gen.

AIR COMPRESSORS

1300 cu. ft. 100# pres. Worthington 2 stage, 20 & 12x16 Belted with Intercooler.
270 cfm 100# Chg. Pne. Gas. Portable.
220 cfm 100# Ing. Rd. Gas. Portable.
175 cu. ft. 100# pres. Chic. Pneu. 9x8.
1—164 cu. ft. Ch. Pneu. Steam Type.
3—373 cu. ft. Bury 12x10—A.C. Motors.
1—90 cu. ft. 100# Chic. Pneu.—A.C. Motor.

AC MOTORS (3 ph. 60 cy.)

HP	Make	Wdg	Spd.	Type
1500	West.	Syn.	1200	NEW
1000	West.	Syn.	1200	NEW
450	G.E.	Sl. rg.	257	I-M
400	G.E.	S.R.	514	I-M
400	West.	S.R.	690	CW 1106
350	West.	S.R.	585	CW
350	G.E.	Sl. rg.	900	I-M
300	West.	Sl. rg.	1750	CW
300	West.	S.R.	500	CW
300	G.E.	S.R.	585	I-M
250	West.	S.R.	277	CW 1314
225	West.	S.R.	585	MW
200	G.E.	Sl. rg.	240	MT 412
125	West.	Syn.	300	
100	West.	Sl. rg.	1800	CI
100	West.	S.R.	860	CW
100	F.M.	Syn.	900	ABV
75	West.	S.C.	450/900	CS
75	West.	S.C.	870	CS
50	G.E.	Sl. rg.	900	I-M
50	West.	S.R.	585	CW658D
40	G.E.	Sl. rg.	900	MTC
35	West.	S.C.	870	CS
20	Wagner	S.R.	810	17 TBR

REDUCTION UNITS

500/700 HP Morse Chain Drive—4.28 to 1.
250 HP Ottumwa Unit 12½ to 1.
150 HP Nuttall 1.6 to 1.
150 HP G.E. Unit ratio 3 to 1.

D.C. MOTORS

HP	Make	Voltage	Wdg.	Speed
175	G.E. MDS109¼	230	ser.	475
100	G.E. MD108	230	ser.	480
50	West.	500	cp.	565
50	West.	230	sh.	250/1000
50	Northern	230	ser.	600
50	Rel. 185T	320	sh.	1500
40	G.E. (Vert.)	230	cp.	1750
40	Reliance	230	cp.	700
40(1)	West.	230	cp.	775
40	West.	230	cp.	825
40	Roth 126RS	230	cp.	1700
31	G.E. C02002E	500	ser.	710
25	West. SK113	230	cp.	825
20	West.	230	sh.	250/1000
15	West. SK93	230	sh.	825
15	West. S5	230	cp.	1000
15(4)	Cr. Wh.	230	sh.	1400/1700
13	West. SK113	230 Enc.	cp.	850
10	G.E.	230	ser.	875
10	West.	230	sh.	730/1460
7½(2)	Al.-Ch.	230	sh.	350/1050

ENGINE & TURBINE UNITS

125 KVA Allis-Terry Turbo 440/3/60 3600.
50 KW West.—Turbo 125 v.
150 KVA GE 220/440/3/60—Erie Ball Steam.
250 KW Cr. Wh. Skinner Una. 250 v.
500 KW 250 v. G.E.—Terry mixed pres.
2—1250 KW .8 P.F. 2400/3/60 G.E. Curtis.
2500 KVA GE 2300/3/60 RPM.

Electrical Engineers—Specializing in *Rebuilt Electrical Machinery* for over a Quarter of a Century

MOORHEAD-REITMEYER CO., INC. — Pittsburgh 19, Pa. — Phone Mayflower 7900

We Will Pay a

PREMIUM PRICE

for

BOXBOARD

One to six carloads — any of the following types.

1. White patent coated with plain manila or news back.
2. Bleached manila with plain manila or news back. 3. Any type suitable for food containers.

Caliper —.018″ minimum
.020″ maximum
Finish —No. 3
Rolls —23½″ wide
48″ diameter
Cores —10″ diameter with 3½″ square opening in each end. Board to be glued to cores and wound tightly with bleached side out. If cores are not obtainable, rolls will be accepted with 3″ diameter plugs, firmly secured, in the openings. Wrapping — Each roll must be wrapped and capped to prevent damage in transit.

Delivery—All six cars may be shipped at one time; or one carload within three months, remainder at thirty day intervals.

Write or Wire.

TASTY BAKING COMPANY

2801 Hunting Park Ave., Philadelphia 29, Pa.

IMPORTS

NEW YORK IMPORTS

WEEK ENDING FEBRUARY 1, 1947

SUMMARY

Newsprint	8407 rolls
Printing Paper	1284 rolls, 14 cs.
Paperhangings	5 cs.
Wrapping Paper	189 rolls, 627 bdls.
Tracing Cloth	20 cs.
Filter Paper	7 cs.
Surface Coated Paper	2 cs.
Drawing Paper	1 cs.
Photo Paper	154 cs.
Sulphite Paper	242 rolls, 209 bdls.
Waxed Paper	8 cs.
Litho Paper	1 cs.
Miscellaneous Paper	7 cs.

NEWSPRINT

N. Y. Journal American, Markland, Liverpool, N. S., 493 rolls.
N. Y. Tribune, Inc., Markland, Liverpool, N. S., 1698 rolls.
World Telegram, Markland, Liverpool, N. S., 749 rolls.
Brooklyn Eagle, Markland, Liverpool, N. S., 518 rolls.
Clinton Paper Corp., Markland, Liverpool, N. S., 72 rolls.
Sydney S. Hoffman, Markland, Liverpool, N. S., 205 rolls.
Washington Post (Alexandria, Va.), Markland, Liverpool, N. S., 2691 rolls.
Madden Reeve Angel & Co., Coffeyville Victory, Kotka, 1981 rolls.

PRINTING PAPER

Madden Reeve Angel & Co., Coffeyville Victory, Kotka, 581 rolls.
Oxford University Press, American Clipper, Liverpool, 14 cs.
D. C. Andrews & Co., Drammensfjord, Oslo, 703 rolls.

PAPERHANGINGS

W. H. S. Lloyd & Co., John Ericsson, Southampton, 5 cs.

WRAPPING PAPER

The Borregaard Co., Inc., Drottningholm, Gothenburg, 627 bdls.
Curacao Trading Co., Inc., Drottningholm, Gothenburg, 187 rolls (glazed sulphite).
Jay Madden Corp., Coffeyville Victory, Kotka, 2 rolls.

TRACING CLOTH

Keuffel & Esser Co., American Clipper, Liverpool, 20 cs. (Bleached cotton).

FILTER PAPER

H. Reeve Angel & Co., Inc., Villanova Victory, London, 7 cs.

SURFACE COATED PAPER

Gevaert Co. of America, Inc., Czechoslovakia Victory, Antwerp, 2 cs.

DRAWING PAPER

H. Reeve Angel & Co., Inc., Villanova Victory, London, 1 cs.

PHOTO-PAPER

Chemco, Inc., Villanova Victory, London, 150 cs. (base paper).
(———), Villanova Victory, London, 4 cs.

SULPHITE PAPER

Eric M. Warburg, Inc., Drottningholm, Gothenburg, 242 rolls, 209 bls.

WAXED PAPER

Meadows Wye & Co., Villanova Victory, London, 8 cs.

LITHO PAPER

Meadows Wye & Co., Argentina, Copenhagen, 1 cs.

MISCELLANEOUS PAPER

Saentis, Inc., Purdue Victory, Antwerp, 1 cs.
C. K. Hunt, Drottningholm, Gothenburg, 6 cs.

RAGS, BAGGINGS, ETC.

Acram Paper Mills, Buenos Aires, Santos, 136 bls. flax mill waste.
Cecil Kutz, Buenos Aires, Recife, 62 bls. pickers.
American Cotton Products Co., Buenos Aires, Recife, 53 bls. cotton waste.
E. J. Keller Co., Inc., Skagway Victory, Alexandria, 309 bls. hessian camouflage bagging.
Irving Trust Co., Skagway, Alexandria, 205 bls. light hessian bagging.
(———), Skagway Victory, Haifa, 54 bls. cotton rags.
Continental Bank Trust Co., Skagway Victory, Haifa, 189 bls. cotton rags.
Atlas Waste Manufacturing Co., Mariners Splice, Havana, 16 bls. cotton waste; 9 bls. burlap waste.
Darmstadt Scott & Courtney, Czechoslovakia Victory, Antwerp, 124 bls. jute thread waste.
O'Brien Products Co., Irisbank, Shanghai, 100 bls. cotton waste.
Kauders Steuber Co., Irisbank, Shanghai, 300 bls. cotton waste.
Riverside Mills, Irisbank, Shanghai, 200 bls. cotton waste.
Padawer Corp., Irisbank, Shanghai, 564 bls. cotton waste.
Brandwein Mazur Co., Irisbank, Shanghai, 200 bls. cotton waste.
(———), Fort Cadotte, Liverpool, 10 bls. old wool rags.
Irving Trust Co., Villanova Victory, Antwerp, 105 bls. bagging.
(———), Alma Victory, Calcutta, 570 bls. old hemp strings and cloth.
E. J. Keller Co., Inc., Mount Rogers, Bombay, 100 bls. old jute rags.
M. E. Schoen Corp., Mount Rogers, Bombay, 100 bls. cotton waste.
Swiss Bank Corp., Mount Rogers, Bombay, 350 bls. cotton waste.
A. W. Fenton Co., Mount Rogers, Bombay, 210 bls. dark cotton rags.
Star Woolen Co., Santa Barbara, Valparaiso, 37 bls. rayon waste.

OLD ROPE

International Purchasing Co., Fort Amherst, Hamilton, 194 pkgs.

CHINA CLAY

Carborundum Co., American Clipper, Liverpool, 12 kegs.

FILTER PULP

H. Reifenberg, Czechoslovakia Victory, Antwerp, 100 bls. (cotton).

WOODPULP

Pagel Horton & Co., Inc., Santiago, Iglesias, Husum, 12,192 bls. dry sulphate pulp; 6096 bls. dry bleached sulphate pulp; 1 bl. dry sulphite pulp.
Pagel Horton & Co., Inc., Santiago Iglesias, Sikea, 11,989 bls. strong unbleached sulphite pulp.
Cellulose Sales Co., Santiago Iglesias, Obbola, 8526 bls. dry sulphate pulp.
Cellulose Sales Co., Drottningholm, Gothenburg, 3264 bls. dry sulphite pulp, 543 tons.
The Borregaard Co., Inc., Drammensfjord, Oslo, 1 bl. dry sulphite pulp.
Gottesman & Co., Inc., Coffeyville Victory, Hernosand, 608 bls. half prime strong sulphite pulp.
J. Andersen & Co., Coffeyville Victory, Hernosand, 4876 bls. half prime strong sulphite pulp; 1219 bls. 2nd quality strong sulphite pulp.

WOODPULP BOARDS

Jay Madden Corp., Coffeyville Victory, Kotka, 1426 rolls (solid white).

BOSTON IMPORTS

WEEK ENDING FEBRUARY 1, 1947

International Purchasing Co., Midland Victory, Antwerp, 61 bls. old manila rope.
Atlantic Gelatine Co., Midland Victory, Antwerp, 124 bls. picker waste.

PHILADELPHIA IMPORTS

WEEK ENDING FEBRUARY 1, 1947

Price & Pierce, Ltd., Coffeyville Victory, Wallvik, 6300 bls. dry sulphite pulp; 3450 bls. sulphate pulp.
Cellulose Sales Co., Coffeyville Victory, Soderhamn, 3134 bls. dry sulphate pulp.

TRENDS

Office of the PAPER TRADE JOURNAL, Wednesday, February 5, 1947.

Wholesalers of paper and its products indicate they expect to sell nearly all available paper during 1947 so long as mill prices of finished or converted products remain at reasonable levels. Thus, even with increases in current rates of production, domestic paper and paperboard requirements will not be satisfied. In a period when selling prices are increasing, price relationships can easily become distorted. Should this happen the increasing costs of paper products will tend to choke off the consumer's ability to purchase such products or to purchase the products of other industries which consume paper. Current feeling is that manufacturers will control selling prices so as to assure maximum consumption.

The index of general business activity for the week ended January 25 eased to 148.5 from 148.9 in the previous week, compared with 114.2 for the corresponding week in 1946. The index of paperboard production declined to 176.1 from 180.8 in the previous week, compared with 145.0 for the corresponding week in 1946.

Paper production for the week ended January 25 was estimated at 103.7 per cent, compared with 103.8 for the preceding week, with 94.5 for the corresponding week in 1946, with 88.4 for 1945, with 89.2 for 1944, and with 87.1 for the corresponding week in 1943.

Paperboard production for the week ended January 25 was 101.0 per cent of capacity, compared with 103.0 per cent for the preceding week, with 94.0 for the corresponding week in 1946, with 95.0 for 1945, with 95.0 for 1944, and with 88.0 per cent for the corresponding week in 1943.

Converters foresee increased production with an indicated appearance of easier paper and board supplies owing to new capacity coming in. A number of new products have been developed and production is only awaiting necessary raw materials. Converters report current raw material supply situation has shown little improvement, but qualified labor is more readily available. Prices of most raw materials are up including those of paper, chemicals, adhesives, etc., and supplies for the most part are expected to remain below demand at least through June.

Among recent developments in paper and its products are: Containers that are waterproof, odorless, greaseproof, tasteless and noncorrosive particularly useful for packing frozen foods. Lightweight corrugated paper boxes that are vaporproof and waterproof used in shipping perishables by air. Paper twine for binding uses as substitutes for sisal and henequin. Braided twisted paper as substitutes for steel strapping in baling clothing, cotton, etc. Bottle corks made of cardboard faced with plastic; creping wadding for packing fragile materials; fiber cans and tubes as substitutes for metal ones; multiwall paper bags for potatoes, peanuts, salt, corn, etc. A multiwall paper bag with an asphalt laminated outer and inner sheet designed for sand bag use. Many other paper innovations are in the development stage and in the not too distant future we may become accustomed to paper-plastic flooring, paper clothing, paper bedding, paper raincoats, fluorescent paper for night work or theatrical use; paper draperies and the researchers tell us we can expect an even larger list of new items.

Credit Output To Finns

Finnish wood pulp, newsprint, and other paper manufactured as war reparations for the Soviet Union and sold by the Russians will no longer be represented as Russian products. Previously the Russians ordered Finnish factories to omit the "Made in Finland" mark, which is compulsory in international trade. The Russian foreign trade organization is reported to have been invoicing such merchandise to foreign buyers at prices more than double credited to the Finns. Under new regulations the Finns will not send such goods to Russia for reshipment. Rather they will ship via Stockholm or London to the Soviet Union's customers abroad. Recently Greece purchased 3,000 tons of newsprint from Russia at $212 per ton, according to a report from Stefano Stephanopoulos, Greek Minister of Coordination.

Hearst Acquires Pulp Mill

Reliable sources report the Hearst Corporation of New York as purchasers of the Halifax Pulp and Paper Company of Sheet Harbor, N. S., including all its timber holdings. The timber holdings, mainly spruce forests, cover about 200 square miles. Mill production is estimated at 30,000 tons of ground pulpwood a year.

Wood Pulp

Domestic production of wood pulp remains at high levels while imports from overseas continue to fall off. Swedish mills reportedly are booked solid for 1947 production but are pessimistic about deliveries. Whether they can fulfill their engagements depends largely on the amount of coal they will be receiving from the United States, Poland and the Ruhr. Thus far, United States coal has been coming in regularly but should anything curtail these shipments Sweden has no reserves to meet emergencies.

Waste Paper

All eight of New York City's incinerators are now equipped to salvage waste paper. Final installation was made last Saturday at the plant at Zerega Avenue and East 177th Street, the Bronx. The Eastern Conservation Committee of the Waste Paper Consuming Industries report that the last incinerator to be equipped with the double-belt conveyor system is expected to add another 150 tons of waste paper to the weekly total of about 2,000 being redeemed at seven other plants. Before the installations this waste paper had been burned.

Expect Improvement In Chlorine Supply

WASHINGTON — Indications point to a more plentiful supply of soda ash, caustic soda, and chlorine by the middle or end of 1947, the Department of Commerce reported last week.

Output of soda ash, estimated at about 4,200,000 tons in 1946, has not kept pace with growing consumption, according to C. C. Concannon, chief of the Chemical and Drug Division of the Department of Commerce.

Production in 1946 was approximately 40 percent more than the 1929 output of 2,960,000 tons, but slightly less than in 1945; meanwhile a tight supply is caused by increased needs of chemical, glass, paper, textile, and other consuming industries. Scarcity of soda ash, caustic soda and chlorine is world-wide, Mr. Concannon added, with none available for export from European supplies of caustic soda. Information reaching here indicates a very low production in Japan, with none for export.

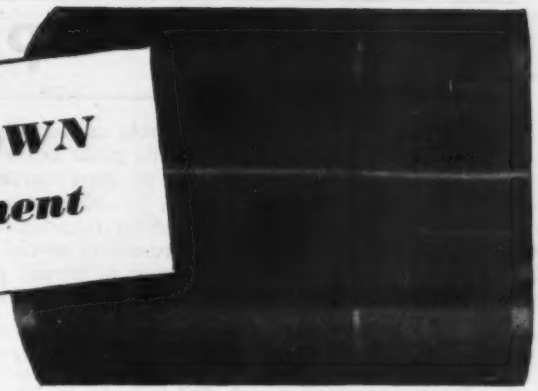
A similar dearth of caustic soda is found throughout the world, and in Latin America, both caustic soda and soda ash are in short supply.

Mr. Concannon estimated domestic production of dense soda ash at approximately 1,500,000 tons in 1946, with imports comparatively negligible. The United States supply situation for caustic soda and chlorine, he said, "is equally critical."

An important factor in the chlorine shortage, he recalled, is lack of tank cars to move it, since the extent to which present electrolytic cell capacity can be utilized for making it depends on ability to ship or consume chlorine.

(For each pound of chlorine produced, 1.1 pounds of caustic soda is made. When chlorine cannot be shipped or used in the plant, operations must be reduced, lowering caustic soda output.)

A good way to CUT DOWN Screen Plate Replacement



RESISTS WEAR AND CORROSION. Centrifugal pulp screen of perforated Monel plate, fabricated by *Hendrick Mfg. Co.*, Carbondale, Pa., of 18 U. S. gauge Monel sheet with 0.062" perforations. *(Photo courtesy of Trimbey Machine Works, Glens Falls, N. Y.)*

Make your screens of the metal with wear resistance, strength and high fatigue properties

What metal is that?

***Monel**:*

Used in centrifugal pulp screens operating on chemical and ground wood pulps, perforated Monel plates frequently outlast other screen plate materials two or three times.

Why?

Because Monel—like all high Nickel Alloys—is strong and tough. It's rustproof. It resists corrosion caused by acid and alkaline stocks and solutions.

Furthermore, Monel has high fatigue strength. It withstands wear and abrasion. Its perforations remain smooth; they retain their size and shape.

Here's what one user says:

"Other plates wear from 0.058 in. to 0.065 in. in less than 150 operating days. *We have records of a number of Monel plates which have . . . increased only from 0.060 in. to 0.064 in. in 500 days.*"

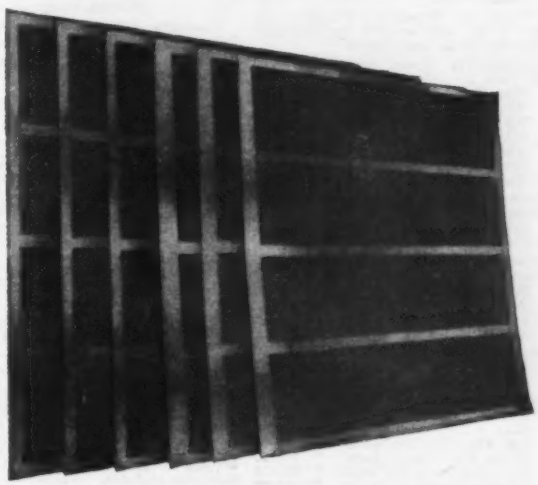
Monel screens are perforated from cold-rolled Monel sheets having an approximate hardness of 130 Brinell. Perforations can be as small as 0.045 in. in diameter . . . or as large as one inch.

For your next screens, give Monel a trial . . . and see how much longer they last, how much better they serve, in *your* mill!

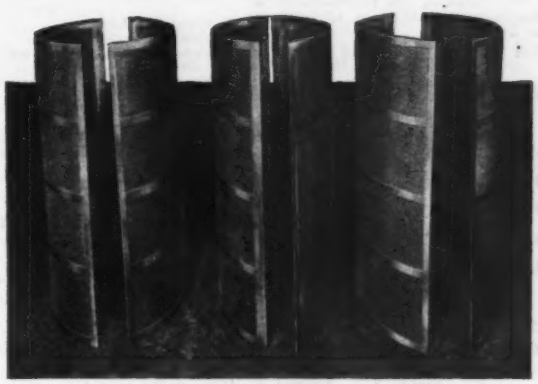
THE INTERNATIONAL NICKEL COMPANY, INC.
67 Wall Street, New York 5, N. Y.

Monel NICKEL INCO ALLOYS

MONEL* • "K"* MONEL • "S"* MONEL • "R"* MONEL • "KR"* MONEL • INCONEL* • NICKEL • "L"* NICKEL • "Z"* NICKEL
*Reg. U. S. Pat. Off.



READILY FABRICATED. Although Monel is strong and tough and hard, it is easy to work with. These plates have 0.060" perforations on 7/64" centers. Plates are curved after perforating, as shown below.



THESE ARE THE SIX MONEL PLATES pictured above. They've been curved, and are now ready for use in Quiller pulp screens. *(Fabricator: Chas. Mundt & Sons, 55 Fairmount Avenue, Jersey City, N. J.)*

PRICES

With the elimination of price controls on paper, pulp, rags and other materials, the quotations given below once more become indicative of trends in an open market. At the moment they can be of little more, for, while some volume of business still is being done under contract at the figures given below, fluctuations representing special conditions are too varied and too frequent to permit prices to be given as representing a wholly stabilized market.

Paper

(Delivered New York)

Standard News, per ton—

Roll, contract	$84.00	@	—
Sheets	103.00	"	—

Kraft—per cwt.—Carload Quantities Zone A, Delivered

Superstandard Wrapping	*$5.75	@	$6.00
No. 1 Wrapping	*5.50	"	5.75
Standard Wrapping	*5.25	"	5.50
Standard bag	*5.25	"	5.50

* Prices for Standard Wrapping are for 40 lb. base weight; for Standard Bag for 30 lb. base weight.

Tissues—Per Ream 24x36 (480) 10 lb. Zone 1.

Wh. No. 1 Frd.	1.10	@	1.20
Wh. No. 1 M. G.	1.10	@	1.20
Wh. No. 1½	.95	@	1.10
Wh. No. 2	1.00	@	1.10
Wh. Anti-Tar.	2.25	@	3.50
Kraft Unbl.	1.15	@	1.25
Manila No. 2	.90	@	1.05

Toilet—Per Case of 100 rolls 1 M Sheets.

Unbleached	4.47	@	5.50
Bleached	6.50	"	—

Paper Towels — Per Case of 3750 Zone 1.

Wh. C. fold 11x13¾	4.09	@	—
Br. Sgl. fold 10 in.	2.37	"	2.48
Br. M'tif'd 9½x14¾	3.48	"	—
Br. M'tif'd 9¾x9¾	2.37	"	2.48

Manila—per cwt.—C. l. f. a.

No. 1 Jute	11.25	@	—
No. 1 Manila 35 lb.	6.00	"	7.00

Boards, per ton—

News	*70.00	@	75.00
Chip	*67.50	"	73.00
Sgl. Mla. L1 Chip	*80.00	"	89.00
White Pat. Coated	*86.00	"	101.50
Kraft Liners 42 lb.	*84.00	"	100.00
Binders Boards	94.00	"	126.00

Base Prices per 10 tons. Less than 10 tons but over 3 tons, add $2.50; three tons or less, add $5; regular 35-39 basis, add $5; basis 48-49, add $2.50; basis 91-100, add $2.50; basis 101-120, add $5.

The following are representative of distributers' resale prices, all deliveries in Zone 1:

Rag Content Bonds and Ledgers—White, Assorted Items

	Bonds		Ledgers
100% Rag Ext. No. 1	$39.75 @ $46.75		$40.90 @ $48.00
100% Rag	32.85 " 38.50		34.00 " 40.00
85% Rag	.... "		30.55 " 38.75
75% Rag	24.30 " 28.50		24.45 " 30.00
65% Rag	.... "		.... " ....
50% Rag	20.05 " 24.50		21.25 " 25.75
25% Rag	17.85 " 21.75		19.00 " 23.25

Colors at $1.00 cwt. extra.

Sulphite Bonds and Ledgers.. White, Assorted Items

	Bonds		Ledgers
No. 1	$12.00 @ $14.50		$13.15 @ $16.00
No. 2	11.25 " 13.75		12.25 " 15.00
No. 3	.... "		.... " ....
No. 4	10.60 " 13.00		11.75 " 14.25

Colors $1.00 cwt. extra.

Free Sheet Book Papers—White, Cased Paper

No. 1 Glossy Coated	$14.70 @		$16.75
No. 2 Glossy Coated	13.75 "		15.50
No. 3 Glossy Coated	13.20 "		16.00
No. 4 Glossy Coated	12.80 "		14.50
No. 1 Antique (Watermarked)	11.35 "		12.75
No. 2 Offset	10.65 "		12.25
A Grade E. F.	10.00 "		12.00
A Grade S. & S. C.	11.00 "		12.50
B Grade E. F.	10.30 "		11.75
B Grade S. C.	10.70 "		12.25
C Grade E. F.	10.00 "		11.50
C Grade S. C.	10.40 "		12.00
D Grade E. F.	9.70 "		11.00
D Grade S. & S. C.	10.10 "		11.50

Ivory & India at $.50 cwt. extra.

Wood Pulp

Domestic mill prices delivered with former OPA freight allowances.

	Per Short ADT		
Groundwood	$75.00	to	—
Unbleached Sulphite	105.00	"	—
Bleached Sulphite	115.00	"	122.50
Bleached Soda	105.00	"	115.00
Unbleached Kraft	102.50	"	—
Southern Kraft	90.00	"	—

Canadian mill prices delivered with freight allowances of $7.50 per ADT; unless otherwise specified:

	Per Short ADT		
Regular Kraft	$102.50	to	—
Select Unbleached Kraft (no freight allowance)	105.00	"	—
Unbleached Sulphite	105.00	"	—
Glassine Unbleached Sulphate (no freight allowance)	90.00	"	—
Bleached Soda	105.00	"	115.00
Groundwood	75.00	"	80.00
Sideruns Pulping News	75.00	"	—
Hardwood and Specialty Grades	Nominal		

Swedish wood pulp prices, per ton of 2,000 lbs. air dry weight on dock usual Atlantic and Gulf ports with an average freight cost of about $9.00 per short ton included. Subject to change as it is said these prices are not satisfactory to Swedish producers:

	Per Short ADT
Bleached Sulphite	$120.00
Bleached Kraft	126.00
Unbleached Sulphite	95.00
Unbleached Kraft	89.00

Finnish quotations f.o.b. shipping point

	Per Short ADT
Bleached Sulphite	$165.00
Unbleached Sulphite	132.50
Unbleached Sulphite (special grade)	137.50
Unbleached Sulphate	132.50
Unbleached Sulphate (special grade)	159.00

Other European countries, at the present time, are not quoting on prompt and forward deliveries of wood pulp, because they have no tonnage available for export.

New Domestic Cotton Cuttings

(Prices delivered Mill Plus Dealer's Commission)

White Shirt	$11.50	to	$12.00
Light Silesias	7.50		
Unbleached Muslin	11.50	"	12.00
White Back Blue Overalls	8.25		
Blue Overalls	7.75		
Unbl. Fancy Shirt	4.50	"	5.00
Light Percales	5.50	"	6.00
Light Prints	5.25	"	5.95
Washables	4.00		
Bleachable Khaki	5.50	"	6.00
Unbleachable Khaki	5.00	"	5.50
Cottonades	4.50	"	5.00

Old Domestic Cotton Rags

(F.O.B. Shipping Point Plus Dealer's Commission)

	Per 100 lbs.		
No. 1 Whites Repacked	$5.00		
No. 1 Whites Miscellaneous	4.25		
No. 2 Whites Repacked	4.00		
No. 2 Whites Miscellaneous	3.50		
Blue Overalls	3.75		
Thirds and Blues Repacked	3.00		
Thirds and Blues Miscellaneous	2.50		
No. 1 Roofing Rags	2.20		
No. 2 Roofing Rags	2.10		
No. 3 Jute Bagging	2.00		
No. 4 Brussels and hard back carpets	2.00		
No. 5A Roofing Rags	2.00		

New Foreign Cotton Cuttings

(Prices delivered Mill)

	Per 100 lbs.		
New Dark Cuttings	$6.00	to	....
New Mixed Cuttings	6.50	"	....
Light Silesias	9.00	"	10.00
Light Flannelettes	8.00	"	9.00
New White Cuttings	13.00	"	15.00
Fancy Shirt Cuttings	9.00	"	10.00
Light Prints	8.00	"	10.00
Bleachable Khaki, No. 1	7.00	"	7.50
Unbl. Khaki, No. 1	6.25	"	6.75

Old Foreign Rags

(F.O.B. New York)

	Per 100 lbs.		
No. 1 White Linens	$14.00	to	16.00
No. 2 White Linens	12.00	"	13.00
No. 3 White Linens	8.00	"	9.00
No. 4 White Linens	8.00	"	9.00
No. 1 White Cottons	10.00	"	12.00
No. 2 White Cottons	8.00	"	9.00
No. 3 White Cottons	6.50	"	7.00
No. 4 White Cottons	5.00	"	5.50
Extra Light Prints	7.50	"	8.00
No. 1 New Light Prints	6.25	"	6.75
Med. Light Prints	5.25	"	5.75
Dutch Blue Cottons	5.25	"	5.50
Checks and Blues	4.00	"	4.25
Linsey Garments	4.50	"	5.00
Dark Cottons	3.75	"	4.00
Old Shopperies	3.25	"	3.50
New Shopperies	3.25	"	3.50

BAGGING

(Prices to Mill, f.o.b. N. Y.)

	Per 100 lbs.		
Foreign Gunny, No. 1	$4.75	to	5.00
Domestic Gunny, No. 1	4.25	"	4.50
Light Wool Tares	4.50	"	4.75
Heavy Wool Tares	4.75	"	5.00
Bright Bagging	4.25	"	4.50
Foreign Manila Rope	6.00	"	7.00
Domestic Manila Rope	5.75	"	....
Jute Strings	4.50	"	5.00
No. 1 Sisal Strings	4.00	"	4.50
Mixed Strings	1.75	"	....

Waste Paper

Prices to Mills

(Dollars Per Ton)

F.o.b. New York, Baled

No. 1 Hard White Envelope Cuts, one cut	$100.00	@	$120.00
No 1 Hard White Envelope Cuts	90.00	"	100.00
No 1 Hard White Shavings, unruled	100.00	"	110.00
No. 1 Hard White Shavings, ruled	80.00	"	90.00
Soft White Shavings, one cut	95.00	"	105.00
No. 1 Soft White Shavings	85.00	"	95.00
Soft White Shavings, Misc.	65.00	"	75.00
No. 1 Fly Leaf Shavings	55.00	"	60.00
No. 2 Fly Leaf Shavings	50.00	"	55.00
No. 1 Groundwood Fly Leaf Shavings	30.00	"	33.00
No. 2 Mixed Groundwood Fly Leaf Shavings	(nominal)		
Mixed Colored Shavings	(nominal)		
Mixed Groundwood Colored Shavings	(nominal)		
Overissue Magazines	(nominal)		
No. 1 Heavy Books & Magazines	40.00	"	45.00
Mixed Books	22.00	"	25.00
No. 1 White Ledger	70.00	"	80.00
No. 2 Mixed Ledger, colored	60.00	"	70.00
New Manila Envelope Cuttings, one cut	65.00	"	75.00
New Manila Envelope Cuttings	100.00	"	110.00
Extra Manilas	40.00	"	45.00
Mixed Kraft, Env. & Bag Cuttings	75.00	"	85.00
Kraft Envelope Cuttings	100.00	"	105.00
Triple Sorted, No. 1 Brown Soft Kraft	75.00	"	75.00
New 100% Kraft Corrugated Cuttings	70.00	"	75.00
No. 1 Assorted Old Kraft	40.00	"	50.00
New Jute Corrugated Cuttings	27.00	"	—
Old 100% Kraft Corrugated Containers	(nominal)		
Box Board Cuttings	23.00	"	—
White Blank News	75.00	"	80.00
Overissue News	(nominal)		
No. 1 News	26.00	"	27.00
No. 1 Mixed Paper	19.00	"	21.00
Old Corrugated	28.00	"	30.00
Mill Wrappers	22.00	"	25.00

Twines

All Prices Nominal

(F. o. b. Mill)

(Soft Fiber)

Coarse Polished—India	.26	@	.29
Fine Polished—Fine India	.31	"	.35
Unpolished—			
Paper Makers	.20	"	.26
Tube Rope	.22	"	.27½
Wrapping	.26	"	.33½
Cotton	.70	"	—
(Hard Fiber)			
Mex. Sisal	.21	"	.24
Manila	.33	"	—
(Hemp)			
Polished Hemp	.63	"	—

PHILADELPHIA

Domestic Rags (New)

(F.O.B. Eastern Shipping Point)

Shirt Cuttings—			
New White No. 1	.07¼		
New White No. 2	.05½		
Light Silesias	.05¾		
Black Silesias, soft	.03¾		
New Unbleached	.07½		
Washable Prints	.04¼		
Washable No. 1	.03		
Blue Overall	.05½		
Cottons—Acording to grades—			
Washable Shredding	.01¾		
Fancy Percales	.04¾		
New Black Soft	.03¼		
Khaki Cuttings—			
Unbleachable Cotton Cuttings	.03½		
Bleachable Cotton Cuttings	.04¼		
Men's Corduroy	.03½		
Ladies' Corduroy	.03		
Cottonades	.03¼		

Domestic Rags (Old)

White No. 1—Repacked	3.80	to	4.00
Mixed White	3.50	"	—
White No. 2—Repacked	2.90	"	—
Thirds and Blues—Miscellaneous	1.80	"	2.50
Repacked	2.20	"	—
Roofing Stock—			
Foreign No. 1	1.85	"	—
Domestic No. 1	1.75	"	—
Domestic No. 2	1.65	"	—
Roofing Bagging	1.35	"	—
Old Manila Rope	5.75	"	—

Bagging

(F.O.B. Eastern Shipping Point)

Gunny No. 1—Foreign	Nominal		
Domestic	3.00	to	3.50
No. 1 Clean Bright—Sisal Strings	.04	"	—
No. 2 Clean Bright—Sisal Strings	.03	"	—
Sisal Jute	.02½	"	.02¾
Scrap—			
No. 1	3.25	"	3.50
No. 2	1.75	"	1.85
Wool Tares, heavy	4.00	"	4.25

No. 1 New Light Burlap	3.00	"	4.00
New Burlap Cuttings	3.75	"	4.00

Old Papers

(F. o. b Phila.)

Mill Prices, Baled

No. 1 Hard White Envelope Cuts, one cut	$100.00	@	$115.00
No. 1 Hard White Shavings, unruled.	100.00	"	—
Soft White Shavings, one cut	90.00	"	95.00
White Blank News	45.00	"	50.00
Soft White Shavings, Misc.	65.00	"	70.00
No. 1 White Ledger	52.00	"	55.00
No. 2 Ledger, colored	42.00	"	45.00
No. 1 Heavy Books & Magazines	38.50	"	40.00
Overissue Magazines	nominal		
New Manila Envelope Cuttings	65.00	"	75.00
No. 1 Assorted Old Kraft	40.00	"	—
No. 1 Mixed Paper	19.00	"	21.00
Box Board Cuttings	23.00	"	25.00
Kraft Corrugated Cuttings	nominal		
Old Corrugated	28.00	"	30.00
Overissue News	35.00	"	—
No. 1 News	26.00	"	30.00

BOSTON

Old Papers

(F. o. b. Boston)

Mill Prices, Baled

No. 1 Hard White Shavings, unruled	7.00	@	8.00
No. 1 Hard White Shavings, ruled	7.00	"	8.00
Soft White Shavings, Mis.	6.25	"	6.50
No. 1 Fly Leaf Shavings	1.65	"	1.80
No. 2 Fly Leaf Shavings	2.00	"	—
No. 1 Groundwood Fly Leaf Shavings	1.25	"	—
No. 2 Groundwood Fly Leaf Shavings	.90	"	—
Mixed Colored Shavings	.75	"	—
New Manila Envelope Cuts, one cut	2.87½	"	—
Hard White Envelope Cuts, one cut	3.37½	"	—
Triple Sorted No. 1 Brown Soft Kraft	2.50	"	—
Mixed Kraft Env. & Bag Cuttings	2.75	"	—
Kraft Envelope Cuttings	3.75	"	—
No. 1 Heavy Books & Magazines	1.92½	"	—
New Manila Envelope Cuts, one cut	2.87½	"	—
New Manila Envelope Cuttings	2.65	"	—
White and Colored Tabulating Cards	4.25	"	4.50
Groundwood Tabulating Cards	1.35	"	—
White Blank News	1.65	"	—
No. 1 Assorted Old Kraft	3.50	"	—
No. 1 Mixed Paper	—	"	.95
Overissue News	1.25	"	1.35
Box Board Cuttings	.72½	"	—
New Corrugated Cuttings, Kraft	2.25	"	—
Old 100% Kraft Corrugated Containers	1.75	"	—
Old Corrugated Containers	—	"	1.40
Jute Corrugated Cuttings	1.07½	"	—
Paper Strings	2.25	"	2.50

Bagging

(F. o. b. Boston)

Gunny Bagging—			
Foreign	5.00	@	—
Domestic	5.00	"	5.12½
Sisal Rope No. 1	6.00	"	—
Sisal Rope No. 2	5.50	"	—
Mixed Rope	5.25	"	—
Mixed Strings	2.00	"	2.50
Transmission Rope—			
Foreign	(nominal)		
Domestic	3.00	"	3.50
Manila Rope—			
Foreign	(nominal)		
Domestic	6.00	"	—
Soft Jute Rope	4.50	"	5.00
Jute Carpet Threads	6.00	"	—
Bleachery Burlap	8.50	"	9.00
Scrap Burlap—			
Foreign	(nominal)		
Domestic	5.00	"	5.25
South America	—	"	3.25
Wool Tares—			
Foreign	4.50	"	—
Domestic	4.50	"	—
Aust. Wool Pouches	5.00	"	5.25
New Zealand Wool Pouches	5.25	"	5.50
New Burlap Cuttings	5.50	"	6.00
Heavy Baling Bagging	5.25	"	5.75
Paper Mill Bagging	3.50	"	3.75
No. 1 Roofing Bagging	1.75	"	—

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.06	@	.06½
Fancy Percales	.04¼	"	.05
New White No. 1	.06¾	"	.07
New Light Flannelettes	.09½	"	.10
Canton Flannels, Bleached	.06	"	.06¾
Underwear Cutters, Bleached	.06¼	"	.06¾
Underwear Cutters, Unbleached	.05¾	"	.06
Silesias No. 1	.06	"	.06¾
New Black Silesias	.03	"	.03¾
Red Cotton Cuttings	.03½	"	.04
Soft Unbleached	.11½	"	.12
Blue Cheviots	.05½	"	.04
Fancy	.02¾	"	—
Washable	.02¾	"	—
Khaki Cuttings	.02¾	"	.03
O. D. Khaki	.06	"	.06¼
Corduroy	.03¼	"	.03½
New Canvas	.06¼	"	.06½
B. V. D. Cuttings	.11½	"	.12

Domestic Rags (Old)

(F. o. b. Boston)

White No. 1—			
Repacked	3.80	@	—
Miscellaneous	3.20	"	—
White No. 2—			
Miscellaneous	2.65	"	—
Twos and Blues, Repacked	2.20	"	—
Old Blue Overalls	2.25	"	2.50
Thirds and Blues, Repacked	2.20	"	—
Miscellaneous	1.80	"	—
Black Stockings	3.50	"	4.00
Roofing Stock—			
No. 1	2.00	"	—
No. 2	1.90	"	2.00
No. 3	1.35	"	—
No. 4	1.35	"	—
No. 5, Quality A.	1.35	"	—
Quality B.	1.20	"	—
Quality C.	.95	"	—
Old Manila Rope	6.00	"	—

Foreign Rags

(F. o. b. Boston)

Canvas	(nominal)
Dark Cottons	(nominal)
Dutch Blues	(nominal)
New Checks and Blues	(nominal)
Old Fustians	(nominal)
Old Linsey Garments	(nominal)
New Silesias	(nominal)

CHICAGO

Waste Paper

(F. o. b. Chicago)

Mill Prices, Baled

Shavings—			
No. 1 Hard White Envelope Cuts, one cut	$110.00	@	$120.00
No. 1 Hard White Shavings, unruled.	105.00	"	115.00
No. 1 Soft White Shavings	80.00	"	95.00
No. 1 White Ledger.	55.00	"	65.00
No. 1 Heavy Books & Magazines	40.00	"	43.00
White Blank News	43.00	"	49.00
Mixed Kraft Env. & Bag Cuttings	75.00	"	85.00
No. 1 Assorted Old Kraft	45.00	"	55.00
Overissue News	38.00	"	42.00
No. 1 News	30.00	"	35.00
No. 1 Mixed Paper	19.00	"	20.00
Old Corrugated	32.00	"	36.00
Mill Wrappers	25.00	"	29.00

MARKETS

BLANC FIXE—Active demand continues as raw materials remain tight. Pulp is currently quoted at $40 per ton, in barrels, car lots, at works; the powder is currently quoted at $60 per ton car lots, f.o.b. works.

BLEACHING POWDER—Supplies adequate to meet current demands although there is some delay in current shipments. Quotations are unchanged. Prices on bleaching powder range from $2.50 to $3.10 per 100 pounds, in drums, car lots, at works.

CASEIN—Current prices on processed acid precipitated casein are reported around 46 to 52 cents per pound for both domestic and Argentine grades; f.o.b. shipping point, with quantity not specified at the present time. Supplies are expected to increase in the next few months.

CAUSTIC SODA—Demand very strong with supplies tightest ever. Shipments are behind schedule. Cutback production further reduces stocks. Solid caustic soda is reported at $2.50 per 100 pounds; flaked and ground offered at $2.90 to $3.00 per 100 pounds.

CHINA CLAY—Supplies tight as demand continues heavy. Domestic filler clay is currently $8.50 to $9.00 per ton, car lot. Coating clay is $12 car lot and $16 less car lot. Imported clay is $20 to $22 per ton, car lot, export warehouse; and $45 less car lot.

CHLORINE—Market tight as demand continues to exceed output, stocks low. Lack of tank cars continues to hamper deliveries. Quotations unchanged. Chlorine is currently quoted at $2 to $2.25 per 100 pounds.

ROSIN—Gum rosin in drums, per 100 pounds net, in yard New York, car lots, B. D. $8.90; E, F, G, H, I, K, M, $9.60; WG, $9.90; WW, $9.90. Wood Rosin, per 100 pounds l.c.l., f.o.b. N. Y., B, $6.45; FF, $7.95; G, H, I, $8.75; WW, $8.95.

SALT CAKE—Demand continues to increase with supplies showing little improvement. Prices remain unchanged. Domestic salt cake is quoted at $15 per ton in bulk. Chrome salt cake is quoted at $16 per ton.

SODA ASH—Demand active as supplies continue short, previous orders filled. Contract orders prevail at the same high levels. Current prices, car lots, per 100 pounds, are as follows: in bulk, $1.05; in paper bags. $1.20; and in barrels, $1.60.

STARCH—Supplies are showing steady improvement. Previous orders filled. Starch prices remain unchanged. The pearl grade is quoted at $3.62 per 100 pounds; powdered starch at $3.73 per 100 pounds.

SULPHATE OF ALUMINA—Demand active, supply fair. Quotations continue unchanged. The commercial grades are quoted at from $1.15 to $1.20 per 100 pounds, in bags, car lots, f.o.b. works. The iron free is quoted at $1.75 to $2 per 100 pounds, in bags, at works.

SULPHUR—Strong seasonal demand is reported with stocks plentiful to meet all requirements. Annual contracts are quoted at $16 per long ton, f.o.b. mines; the price f.o.b. at Gulf Ports is $20 per long ton.

TALC—Domestic and French grades are moving in fair volume with prices steady. Domestic grades are currently quoted at from $14 to $25 per ton at mines; Canadian at $35 to $45 per ton. All prices in car lots.

Convention Programs Full of Interest

(Continued from page 17)

GROUNDWOOD PAPER MANUFACTURERS ASSOCIATION
10:00 A.M., Annual Meeting *Le Perroquet W*
12:30 P.M., Luncheon *Le Perroquet X*
2:00 P.M., Annual Meeting (continued) ..... *Le Perroquet X*

NATIONAL COUNCIL FOR STREAM IMPROVEMENT, INC.
10:00 A.M., Joint Meeting — Regional Chairmen and Vice-Chairmen and Technical Planning and Budget Committee ..... *Carpenter Salon*
1:00 P.M., Luncheon *Carpenter White*

SALESMEN'S ASSOCIATION OF THE PAPER INDUSTRY
3:30 P.M., Executive Committee Meeting ..... *Le Perroquet W*
4:30 P.M., Annual Meeting and Cocktail Party ..... *West Foyer*

SULPHITE PAPER MANUFACTURERS ASSOCIATION, INC.
10:00 A.M., Budget Committee *Crane Room 4-V*
11:00 A.M., Board of Governors *Crane Room 4-V*
12:30 P.M., Board of Governors Luncheon ..... *Crane Room 4-U*
2:30 P.M., Annual Meeting *Jansen Suite*
6:00 P.M., Annual Dinner *Jansen Suite*

THE TISSUE ASSOCIATION, INC.
10:00 A.M., Toilet Tissue Industry *4-M*
2:00 P.M., Paper Towel Industry *4-M*
5:00 P.M., No. 2 Wrapping Tissue Division *4-M*

WAXED PAPER INSTITUTE, INC.
9:30 A.M., Executive Committee Meeting ..... *Le Perroquet Y*
1:00 P.M., Private Luncheon *Le Perroquet Y*
2:30 P.M., Executive Committee Meeting (continued).. *Le Perroquet Y*

WRITING PAPER MANUFACTURERS ASSOCIATION
10:00 A.M., Executive Committee *Pillement Suite*
1:00 P.M., Thin Paper Group — Luncheon *4-F*

Tuesday, February 25, 1947

AMERICAN FOREST PRODUCTS INDUSTRIES, INC.
10:00 A.M., General Meeting *Le Perroquet X*

AMERICAN PAPER AND PULP ASSOCIATION
9:00 A.M., Committee on Instrumentation Research.. *Crane Room 4-U*
9:30 A.M., Waste Paper Committee *Carpenter White*
10:00 A.M., Committee on Public Affairs ..... *4 J-K*
11:00 A.M., Technical Committee *Crane Room 4-V*
2:30 P.M., Statistical Committee *4-L*
2:30 P.M., Committee on Classification and Definitions.. *Crane Room 4-V*
2:30 P.M., Finance Committee *4 J-K*

ASSOCIATION OF PULP CONSUMERS, INC.
10:00 A.M., Directors' Meeting *4-L*
1:00 P.M., Directors' Luncheon *4-F*
3:00 P.M., Annual Meeting *Jade Room*

GLASSINE AND GREASEPROOF MANUFACTURERS ASSOCIATION
4:30 P.M., Exacutive Committee *Secretary's Suite*

KRAFT PAPER ASSOCIATION, INC.
10:00 A.M., Executive Committee *Pillement Suite*

NATIONAL COUNCIL FOR STREAM IMPROVEMENT, INC.
10:00 A.M., Board of Governors *Carpenter Salon*
2:00 P.M., Annual Meeting of Members ..... *Jansen Suite*
4:30 P.M., Meeting—New Board of Governors ..... *Carpenter White*

NATIONAL CREPE PAPER ASSOCIATION OF AMERICA
12 Noon, Luncheon Meeting *Crane Room 4-U*

NEWSPRINT MANUFACTURERS ASSOCIATION OF THE UNITED STATES
9:00 A.M., General Meeting *Crane Room 4-V*

SALESMEN'S ASSOCIATION OF THE PAPER INDUSTRY
12:30 P.M., Annual Luncheon *GRAND BALLROOM*

SODA PULP MANUFACTURERS ASSOCIATION
4:30 P.M., Annual Meeting *Pillement G-H*

SPECIALTY PAPER AND BOARD AFFILIATES
10:30 A.M., Executive Committee *Le Perroquet Y*
3:00 P.M., Coated Cardboard Group *Le Perroquet Y*

SULPHITE PAPER MANUFACTURERS ASSOCIATION, INC.
9:30 A.M., Bleached Group .. *4 N-P*
11:00 A.M., Manila Group .. *4 N-P*
2:30 P.M., Unbleached Group *4 N-P*
3:30 P.M., Machine Glazed Wrapping Group ..... *4 N-P*

THE TISSUE ASSOCIATION, INC.
10:00 A.M., Facial Tissue Industry *Jansen Suite*
12 Noon, Overall Nominating Committee *4-M*
2:00 P.M., General Industry Meeting ..... *Le Perroquet X*
5:00 P.M., New Board of Directors *Le Perroquet W*

WAXED PAPER INSTITUTE, INC.
9:30 A.M., General Industry Meeting ..... *Basildon Room*
12:30 P.M., Private Luncheon *Basil don Room*
2:30 P.M., General Industry Meeting (continued) ..... *Basildon Room*

WRITING PAPER MANUFACTURERS ASSOCIATION
9:30 A.M., 86th Annual Meeting *Jade Room*
1:00 P.M., Luncheon Meeting — Bristol Board Group.. *Le Porroquet W*

Wednesday, February 26, 1947

AMERICAN PAPER AND PULP ASSOCIATION
9:30 A.M., Executive Committee and Board of Governors ..... *Jansen Suite*
1:00 P.M., Industry Luncheon *GRAND BALLROOM*
3:00 P.M., Pulp and Paper Industry Council to Department of Commerce *Crane Room 4V*

AMERICAN PULPWOOD ASSOCIATION
9:30 A.M., Annual Meeting *Le Perroquet X*
2:00 P.M., Annual Meeting (continued) ..... *Le Perroquet X*
7:00 P.M., Dinner .. *Basildon Room*

GLASSINE AND GREASEPROOF MANUFACTURERS ASSOCIATION
2:00 P.M., Annual Meeting *Pillement G-H*

KRAFT PAPER ASSOCIATION, INC.
2:30 P.M., Annual Meeting *Jansen Suite*

NATIONAL COUNCIL FOR STREAM IMPROVEMENT, INC.
10:00 A.M., Research Group Leaders ..... *Le Perroquet Y*
2:00 P.M., Research Group Leaders (continued) ..... *Le Perroquet Y*

THE PAPER NAPKIN ASSOCIATION, INC.
10:00 A.M., Annual Meeting *Hotel Barclay*

SPECIALTY PAPER AND BOARD AFFILIATES
3:00 P.M., Photo Mount Group *4 N-P*

SULPHITE PAPER MANUFACTURERS ASSOCIATION, INC.
10:00 A.M., Bleached Converting Group *4-J*

THE TISSUE ASSOCIATION, INC.
10:00 A.M., Jumbo Roll Division & Wrapping Div. ..... *Le Perroquet W*
3:00 P.M., Gift Wrapping Tissue Industry ..... *Le Perroquet W*

WRITING PAPER MANUFACTURERS .. ASSOCIATION
10:00 A.M., Cover Paper Group *Carpenter Salon*

Thursday, February 27, 1947

AMERICAN PULPWOOD ASSOCIATION
10:00 A.M., Board of Directors (newly elected) .... *Crane Room 4-V*

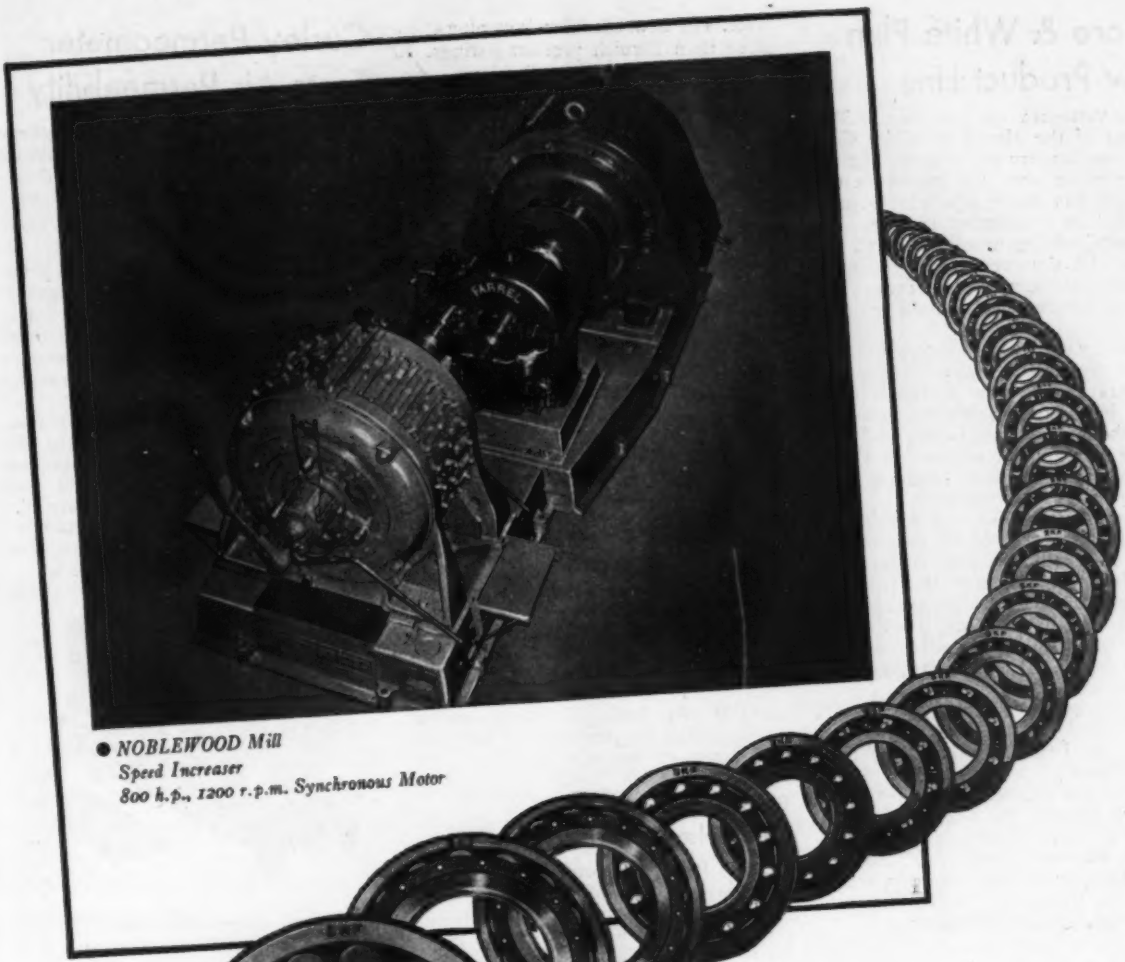
FOREST INDUSTRIES COUNCIL
2:00 P.M., Meeting of Council *Jansen Suite*

FOREST INDUSTRIES INFORMATION COMMITTEE
10:00 A.M., National Committee Meeting *4-M*
6:30 P.M., Dinner for State Committeemen ..... *Jansen Suite*

GLASSINE AND GREASEPROOF MANUFACTURERS ASSOCIATION
3:00 P.M., Technical Committee *4-M*

Friday, February 28, 1947

GLASSINE AND GREASEPROOF MANUFACTURERS ASSOCIATION
9:30 A.M., Technical Committee (continued) *4-M*



● *NOBLEWOOD Mill*
Speed Increaser
800 h.p., 1200 r.p.m. Synchronous Motor

SKF
Puts the RIGHT BEARING in the RIGHT PLACE

1000 ACRES OF SPRUCE

Operating continuously 6¼ days per week, this NOBLEWOOD Mill (stock refiner) reclaims enough waste material in a year's time to save approximately 1000 acres of spruce forests. The working loads developed while running at the 1800 r.p m. operating speed are absorbed by two SKF Spherical Roller Bearings and one SKF Angular Contact Bearing which support the 26"-diameter rotor. These bearings combine high load capacity and equalized load distribution for long life. This is further proof that the best way to get the most out of your machines is to SKF-equip them. 6206

SKF INDUSTRIES, INC., PHILADELPHIA 32, PA.

Moore & White Plan New Product Line

PHILADELPHIA — The stockholders meeting of the Moore & White Company, on January 28, was highlighted with reports that the modernization program has made substantial progress and is continuing rapidly. The program includes new high-speed machines with the eventual re-tooling of the entire plant, new plant layout, and new, efficient materials handling equipment.

It was also reported that a new design of products will shortly be put on the market. The new design is a result of long experimentation with tested methods developed before and during the war and the outcome has been the creation of modern, efficient, high-speed paper mill machinery.

Since January 1946 the number of workers has increased 95 percent and the force is still growing. Apprentices are being trained under the G.I. Bill and the Pennsylvania Apprenticeship Council and they not only receive the best of practical experience but also receive extra instruction through special classes.

All directors and officers were re-elected. Directors are Conrad J. Kern, George A. Lear, Frank F. Schrier, W. E. Bodine, Warner H. Lear, W. E. Schoenly and Deacon R. Taylor. Officers are George A. Lear, president; Conrad J. Kern, chairman; Frank F. Schrier, vice-president; W. E. Bodine, vice-president; W. E. Schoenly, treasurer; and Homer L. Wightman, secretary and assistant treasurer.

John H. Schneider Joins Pennsalt Sales Force

PHILADELPHIA—John H. Schneider, former major in the United States Army Air Force, has joined the sales service staff of the special chemicals division of the Pennsylvania Salt Manufacturing Company.

A graduate of the University of Minnesota, in aeronautical engineering, Mr. Schneider served as a maintenance and repair officer in the Eighth Air Force in the European Theater and later was assigned to an American army team to investigate Axis aircraft developments in Germany. Before his release from service, he spent a year working on development of new jet aircraft in the Engineering Division of the Air Material Command, Wright Field, Dayton, Ohio.

Blackhawk Catalog Reveals Extra-Profit Jacks Uses

MILWAUKEE — The new Blackhawk hydraulic jack catalog is representative of changes now taking place in manufacturers' literature. During the war and the period of short supply, Blackhawk catalogs were necessarily in condensed form and carried only brief listings of specifications and price. The new Blackhawk catalog does more than furnish product listings. It suggests unusual applications and services not ordinarily associated with jacks.

The catalog describes hand jacks up to 100-ton capacity, gauge jacks and wheeled floor jacks. A copy of the catalog and a new price schedule will be mailed by Blackhawk Manufacturing Company, catalog dept., Milwaukee 1, Wis.

Huyck Promotions Advance Leavitt

RENSSELAER, N. Y. — Promotions at the Rensselaer mills of F. C. Huyck & Sons have brought George H. Leavitt, former superintendent of production to a new post as head of standards in the industrial engineering department. John D. Skeer will succeed him as production superintendent and Harold E. White will be assistant to the latter.

Employes appointed overseers in the production department include Seymour Boel, V. J. Krukonis, F. Lawrence Lee, O. L. Russell, Richard H. Rees and R. C. Nickerson. Announcement is also made of the promotion of a number of employes as foremen and assistant foremen.

Bristoll Promoted By Stanley Works

NEW BRITAIN, Conn.—H. C. Bristoll has been named as general manager of the Stanley Works steel strapping division by R. E. Pritchard, president of The Stanley Works. Sales manager of steel strapping for the past 19 years, Mr. Bristoll is a member of The Industrial Packaging Engineers Association of America, and an industrial affiliate of The American Pulp and Paper Mill Superintendents Association.

New Dodge Bulletin Describes SC Bearings

MISHAWAKA, Ind.—A new bulletin, A-120, describing its new line of SC ball bearings has been issued by the Dodge Manufacturing Corporation. This bulletin gives pertinent engineering information covering pillow blocks, hanger bearings, flanged units, take-up units, cylindrical units as well as steel frame ball bearing take-ups. Selection tables provide a convenient means of selecting the right bearing for any application within the size and load range of the line.

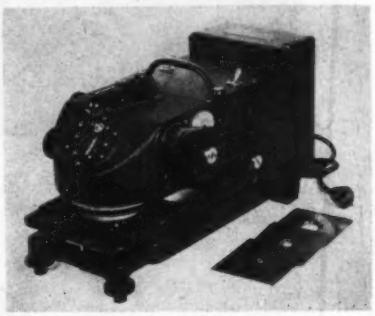
Hooker Profits Rose

NIAGARA FALLS, N. Y.—The Hooker Electrochemical Company reported net income after taxes for the fiscal year ended November 30 of $1,694,018, equal to $4.42 a common share, compared with $1,078,286, or $2.58 a share in the previous fiscal year.

Gurley Permeometer Tests Air Permeability

TROY, N. Y.—The Gurley Permeometer reportedly is one of the newest devices for the measurement of air permeability of textile fabrics, very porous paper, and other porous sheet materials. It differs from other apparatus in that it operates as a penumatic bridge, with results not noticeably affected by motor speed variations or other variables. It conforms to A.S.T.M. Method D737 (Tentative Method of Test for Air Permeability of Textile Fabrics).

Testing materials for air permeability gives much valuable information which can usually not be obtained in any other way. Among the uses for this test is one to measure the suitability of cloth or paper used for vacuum cleaner bags, parachutes, dust



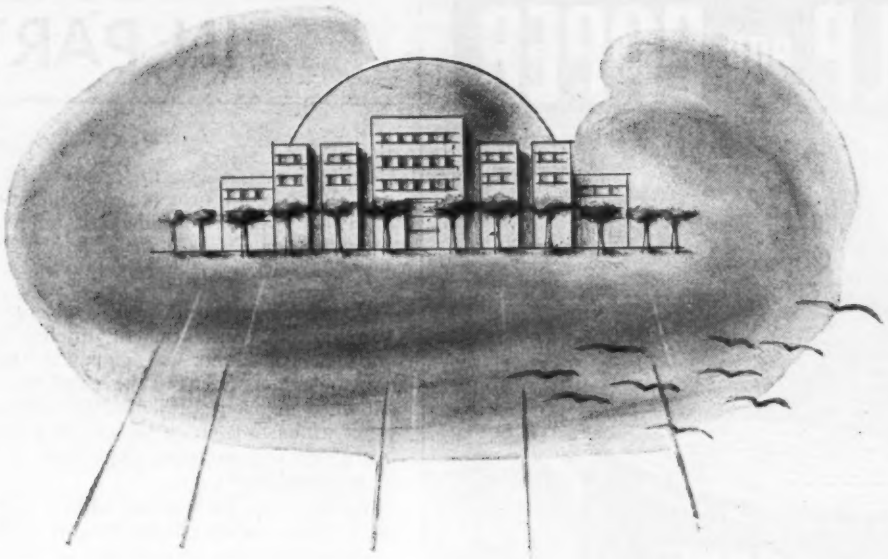
filters, and other uses where the material is required to pass air at a limited rate.

The Gurley Permeometer is in principle a pneumatic bridge, and its use for measuring air permeability is analogous to the use of the Wheatstone bridge for measuring electrical resistance. This permeometer will measure air permeability of materials which pass from 1 to 400 cubic feet of air, per minute, per square foot, at a pressure drop of 0.5 inches of water.

Permeometers are calibrated at the factory and furnished with a calibration curve for converting the valve reading to air permeability. Two check plates are included with each instrument. They provide a means for checking the valve setting, and indicate whenever it is necessary to clean the orifices.

Tests can be made very rapidly, routine tests in not more than 15 seconds. The Permeometer is simple, rugged, and requires no special skill to use. It is portable, and weighs only 15 pounds. The universal motor operates on direct current, or alternating current from 25 to 60 cycles, 115 volts.

Materials may be tested up to 5/16 inch thick, and not less than 3 inches in diameter. Large samples may be tested without cutting, as the throat is six inches deep and large enough to admit considerable material.



Dream Hospital...

The hospital depicted here exists only in the hearts of men and women who are losing the grim battle with cancer. And in the imagination of other men and women who want desperately to provide a haven for these victims in need of hope and care to sustain them in the few months or years still remaining to them.

Actually, there is not a single such hospital anywhere devoted exclusively to these unfortunates who *may* be beyond the help of medical sciences, but who are still certainly in urgent need of hospital care. And only a limited, woefully insufficient number of beds available to them in other hospitals.

During the long years of the war we gave up our plans for the building of this dream hospital...**Hope Institute.**

But now we are more than ever determined to see it rise in stone and steel. A model hospital, the first of its kind ... cheerful and comfortable in every way ... with more the atmosphere of an apartment hotel than of a cold institution. Where the patients, depending upon their condition, can enjoy the warm hospitality of lounge and dining room, or retire to the merciful seclusion of a private room.

What do we need to build this hospital now? **You.** Every dollar or penny you can scrape together for it. Whether or not you know this tragedy from bitter personal experience ... the tragedy of whole families, endlessly frustrated in their determination to care for a doomed member ... give as generously as you can. Please fill out the coupon below and mail with your contribution. It will make this hospital more than a dream.

NCF

THE NATIONAL CANCER FOUNDATION
CRIFFIN BUILDING
85 FRANKLIN STREET • NEW YORK 13, N. Y.

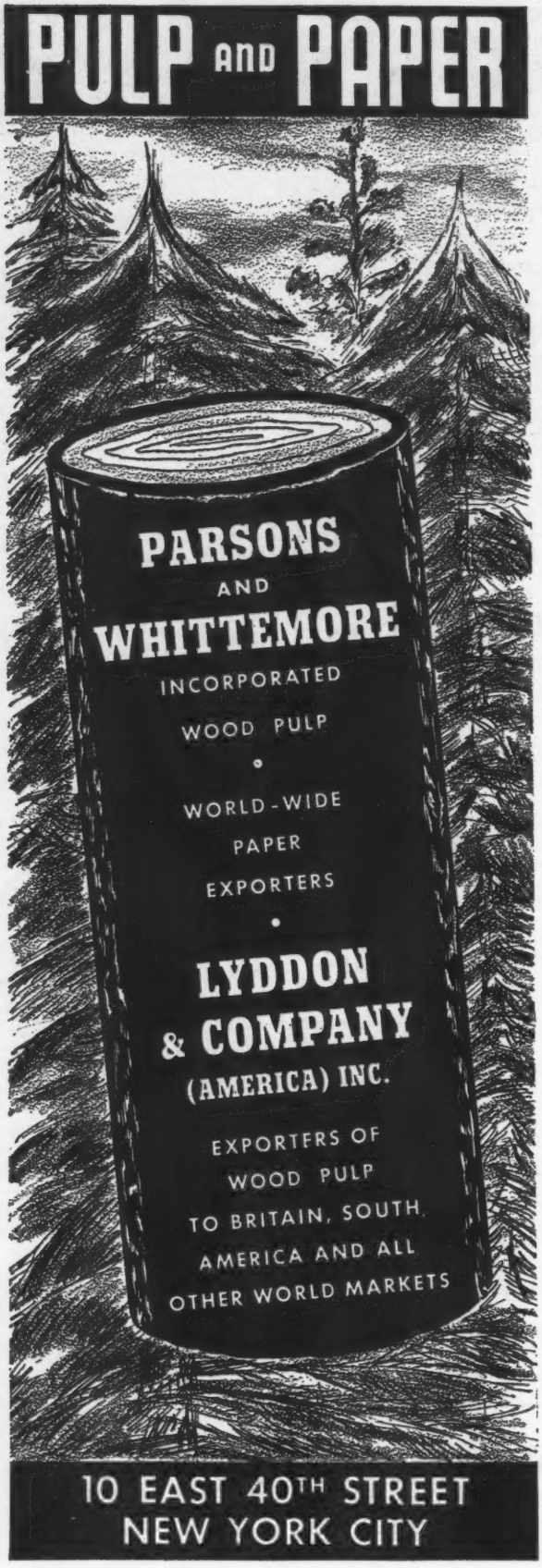
NAME _____

ADDRESS _____

Make checks payable to Abbott Kimball, Treasurer of the National Cancer Foundation.

THE NATIONAL CANCER FOUNDATION

AFFILIATED WITH
SPONSORS OF GOVERNMENT ACTION AGAINST CANCER
THE NATIONAL FOUNDATION FOR THE CARE OF ADVANCED CANCER PATIENTS



IN PART

A free people . . . their safety and interest require that they should promote such manufactories, as tend to render them independent of others.—*George Washington, From First Annual Address to Congress, January 8, 1790.*

We are under no illusions about our Safety program. We know that our accident problem is not solved. We know that accidents will happen in the future. We are, nonetheless, confident in the belief that we have, to some extent, controlled accidents. We believe further that if we continue to keep on top of the job in future, as during 1946, our accident experience will not return to its previous level.

We are hopeful that our efforts will lend encouragement to all operators in the lumber industry, and we feel confident that our attainments of the past year can be surpassed. We believe that through the combined efforts of all operators working in conjunction with employees and their Union, and with the continued assistance of the Workmen's Compensation Board, the Safety Branch of the Department of Labor, and the St. John's Ambulance Association, all of which have been of immeasurable service to us, that it is by no means impossible to reduce the Workmen's Compensation Board assessment on the lumber industry of B. C. by approximately $1,000,000 in the current year. Here is a problem and a challenge deserving of your utmost consideration and action. What are you going to do about it, beat it or continue to be beaten by it?—*Jade Prescott, H. R. MacMillan Export Company. From a talk before the Trade Loggers Association of British Columbia.*

Production Ratio Report*

(Production as per cent of six-day capacity)

COMPARATIVE WEEKLY SUMMARIES

Current Weeks—1946		Corresponding Weeks—1945	
December 21	102.7	December 22	96.5
December 28	71.8	December 29	60.8
January 4, '47	96.3	January 5, '46	89.1
January 11	102.6	January 12	95.3
January 18	103.8	January 19	94.4
January 25	*103.7*	January 26	94.5

COMPARATIVE MONTHLY SUMMARIES

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year Avg.
1946	94.7	98.4	104.4	102.7	100.7	104.6	94.0	104.7	101.3	106.4	105.5	*97.0*	101.1

COMPARATIVE YEARLY SUMMARIES

	1940	1941	1942	1943	1944	1945	1946
Year Average	85.6	97.4	90.4	87.8	88.1	89.7	101.1

PAPERBOARD OPERATING RATIOS†

Current Weeks—1946		Corresponding Weeks—1945	
December 21	102	December 22	92
December 28	66	December 29	52
January 4, '47	85	January 5, '46	75
January 11	102	January 12	94
January 18	103	January 19	93
January 25	101	January 26	94

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year Avg.
1946	90	97	100	99	94	97	89	99	96	100	99	*92*	96

* Based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

† Per cents of operation based on "Inch-Hours" reported to the National Paperboard Association.

EDITORIAL

Limits to Limits

An executive of a paper company, interviewed by R. Goldwin Smith for the Toronto Daily Star, last week, is quoted as declaring that there are no longer available in Canada adequate timber limits for the establishment of another neswprint mill. It would be exceedingly difficult, he declared, for any group now to establish a newsprint industry in Canada with a capacity of, say, five hundred tons daily. No adequate timber limits are available in Canada, he said. The paper man gave this answer when he was questioned as to the likelihood of recurrence of conditions that forced leading newsprint mills of Canada to the wall following the expansion orgy of the 1920's.

The mounting demand for pulp and paper products of many kinds, the executive said, presents problems for the industry. "We producers cannot afford to be smug simply because we can sell more than we produce. Industries in the past which fancied they were sitting pretty and always could make the buyers come to them, soon found out their mistake. Precedent shows that people who want things are going to discover the ways and means to get them.

"Research and forest care are the means by which the Canadian pulp and paper industry can hope to meet the demand on it. If ways can be found to use a lot of timber left uncut on our limits, because at present it is not suitable for pulp and paper making, much of the gap between demand and supply could be made up. The industry could do a lot more research than it has done in the past and much could be done to protect young growth during cutting operations. If we could evolve a process for turning short-fibre wood like jack pine, poplar and tamarack into pulp and paper much of our present problems would be solved.

Report on a Report

Innuendo, with its suggestion of some mysterious power lurking in the shadowy background, always being more damaging than frank accusation, the pulp and paper industry, and particularly the paper trade, is being treated to a conspicuously fine example of invective by suggestion in the case of the missing report on the paper industry. News columnists, the radio commentator have had their turn at referring to a report that one prosecuting agency of the Government made to another prosecuting agency—all with the carefully built-up atmosphere that "here is something that has been kept from you."

This week the Federal Trade Commission confessed all—at least it told why it had never made public a report on the paper industry which it made nine years ago. It was a matter of departmental courtesy, it now appears. Witness the text of a bulletin given out on January 31 by the Commission:

"The Federal Trade Commission has received inquiries as to why the report on its investigation of the newsprint paper industry, which it made at the request of the Attorney General in 1938, had not been made public.

"To one such inquiry, the Commission replied as follows:

" '*** the Commission states that at the written request of Attorney General Cummings, dated January 24, 1938, and specifically referring to section 6(c) of the Federal Trade Commission Act, the Commission made an investigation of the newsprint paper industry. The Commission on January 7, 1939, in compliance with said request, sent its report to Attorney General Murphy.

" 'The report was not made public by the Commission for the reason that it was made for and transmitted to the Attorney General at his request for his use, in connection with complaints received by the Department of Justice.'

" 'On December 30, 1946 Senator Murray, Chairman of the Senate Special Committee to Study and Survey Problems of Small Business Enterprises, addressed a letter to Attorney General Clark requesting a copy of the report. On January 6, 1947 the Attorney General wrote to the Commission referring the request of Senator Murray and advising that he had no objection to the report being released to the Senate Small Business Committee. The Commission on the same day, January 6, 1947, sent the report to Senator Murray.' "

Costs Mounting

Around this time of the year pulp and paper company executives contemplate their probable costs for the operating year ahead. This year, it is said, some companies will have to make upward revisions of their cost figures. Costs are mounting because woods operations are being driven further from the mills for supplies of wood and this year the price of coal is higher, while labor contracts, which do not come up for discussion until May, leave the matter of labor costs uncertain. The 17.6 per cent increase in freight rates in the U. S. will have to be a factor and added to this is the possibility of an increase in freight rates on Canadian railroads, presently being discussed by a commission.

W. L. Cook

EDITOR

Not Non-Skid... but Non-Scuff!

THERE'S no guarantee on the seat of the red-cap's pants. But it's a safe bet that the good-looking luggage will come through this spill in perfect shape. That's because it's covered with a new kind of material, calendered from one of the GEON polyvinyl resins. Almost indestructible, this material also resists aging, sunlight, heat, cold, oils and acids, mildew, and most other normally destructive factors.

These and many other important properties may be compounded into literally hundreds of products, for home and industry, that may be made from GEON. GEON can be pressure or injection molded, calendered or cast into sheet or film. In solution or latex forms it can be applied as coatings for fabrics and fibres of all kinds as well as for paper and cardboard. Products made from GEON may be flexible or rigid, clear or opaque, brilliantly or delicately colored.

Thanks to its versatility there are applications for GEON in *every* home—*every* industry—just as there are for other B. F. Goodrich Chemical Company products such as HYCAR American rubber, KRISTON thermosetting resins, GOOD-RITE brand chemicals, and many other products of the present and the future. While we make no finished products we'll be glad to work with you on any special problem or application. Just write B. F. Goodrich Chemical Company, Dept. U-2, Rose Bldg., Cleveland 15, Ohio. In Canada: Kitchener, Ontario.

Geon
Polyvinyl Materials

Luggage is another interesting application for GEON polyvinyl

Luggage covered with Pantasote's Pantex

B. F. Goodrich Chemical Company A DIVISION OF THE B. F. GOODRICH COMPANY

GEON polyvinyl materials • HYCAR American rubber • KRISTON thermosetting resins • GOOD-RITE brand chemicals

Section of the
TECHNICAL ASSOCIATION
OF THE PULP & PAPER INDUSTRY
122 E. 42nd St., New York 17, N. Y.
Edited by R. G. Macdonald, Secretary

Elimination of Lime Stack Losses with the Type N Roto-clone*

By Cover C. Porter[1], Fred W. Bishop[2], and John G. Liskow[3]

Abstract

Because of the desirability of eliminating a 100 to 150 pound per ton lime loss from the lime kiln which in addition to the economic factor constituted a severe dust nuisance, a mill project was instituted. On the basis of preliminary findings, a Type N Roto-clone was installed on a pilot basis.

The pilot unit showed a dust removal efficiency of from 96 to 99% by weight. This equipment removes the dust by causing the gases from the kiln to pass through a comparatively static body of water; water additions being necessary to offset evaporation and to keep temperatures below the boiling point. The sludge which is composed of about 90% $CaCO_3$ and about 10% CaO at approximately 50% solids is removed by a drag.

The plant installations resulted in a decrease of lime consumption from 156 to 15 pounds of new lime per ton of pulp. The saving of 1375 tons of salt cake per year was also credited to the operation of the units. Data are given on the installation and method of operation.

In the Spring of 1944, shortly after the sulphate mill of Southland Paper Mills had gone into operation, a mill project was initiated to study the elimination of lime losses present in the exit gases of the lime kiln. Aside from the obvious desirability of eliminating the 100 to 150 pound per ton lime loss, there were other considerations warranting elimination of the dust nuisance. Because of the shifting winds and the humid climatic conditions of the East Texas area in which the mill is located, the dust nuisance in the mill from the lime kiln stack was very serious. Motors and electrical equipment had frequent failures caused by impregnation of lime dust into motor windings, etc., and it was particularly important to do something for the protection of the large synchronous motors used in the groundwood mill.

The first demonstration of a dust collecting device was conceived from the principles of submerged combustion. It was known that air and gas handling devices had been developed for the ignition of fuel under relatively high heads of liquids for the purpose of evaporation, and it was therefore decided to attempt to pick up the stack gases from the kiln and force them through a static body of water. Experiments were made in which a 2 hp. blower sampled gases from the kiln breeching and forced them through a 4-inch head of water by suitable baffling in a 55-gallon drum. It was readily apparent from this simple demonstration that the suspended lime dust was removed from the stack gases with a high degree of efficiency.

Various manufacturers of dust collection equipment were then approached to ascertain if existing equipment was available along this general line of operation with the following objectives in view:

1. The equipment would be required to collect the lime dust present in the stack gases with a high degree of efficiency.

2. It would be required to process the collected dust in such a manner that it could be conveniently and cheaply returned to the system.

3. The collection mechanism would have to be compact and require a minimum floor space as the existing kiln and auxiliaries necessitated a space limitation.

4. The equipment would have to be simple to operate with a minimum of maintenance, and lend itself to simultaneously operation with the lime kiln and causticizing system.

In setting up these specifications, it was felt that the elimination of new lime makeup must be taken as far as practical instead of being satisfied with a homemade make-shift such as a conventional spray tower and pumping arrangement. In addition to costly maintenance because of the dust nuisance in the mill, it was realized that the recovery of lime mud from the causticizing process by the kiln was really only about 75 or 80% efficient. The lime mud recovery process should logically be expected to be more efficient than this. The purpose of adding the unit operation of dust recovery to the kiln was for the purpose of raising the over-all efficiency of lime mud recovery.

The feed to the kiln came directly from the six-compartment Dorr white liquor clarifier and mud thickener at 38 to 40% solids and approximately 2.2% Na_2O. The only existing equipment for dust collection that appeared feasible for the lime kiln work was the

* Presented at the meeting of the Technical Association of the Pulp and Paper Industry held at the Roosevelt Hotel, New Orleans, La., Oct. 14-16, 1946.

[1] Member TAPPI; Chief Chemist, Southland Paper Mills, Inc., Lufkin, Texas.

[2] Member TAPPI; Assistant Chief Chemist, Southland Paper Mills, Inc., Lufkin, Texas.

[3] Dust Control Division Engineer, American Air Filter Co., Inc., Louisville, Ky.

Type N Roto-clone, manufactured by the American Air Filter Company. The high temperatures of the exit gases forbid the use of many types of dust collection, which involved numerous textile bags without extensive cooling flues, etc. It was felt that most of the other types of dry dust collection equipment would be of extremely low efficiency. Figure 1 shows the typical arrangement of the Type N Roto-clone for the removal of suspended solids from gases. The dust laden air enters the middle chamber and is induced by the draft fan through a pair of sinuous passages called impellers by the manufacturers. The induced draft of the fan causes a water differential of approximately 6 inches — the higher water level being on the clean air side of the impellers. In operation, the dust laden gases are pulled through a continuous sheet of water which immediately entraps the dust particles and allows them to settle to the bottom of the collection chamber.

Intimate contact of water and dust is obtained in that both the moving liquid and the dust particle are at the same velocity, and that the dust particle is entirely surrounded by the liquid. The ratio of liquid to gas is extremely high for scrubbing equipment; as 1 lineal foot of the impeller passes 750 cubic feet of gases per minute and moves 20 gallons of water per minute. This is quite in contrast to conventional scrubbing towers (other than the packed tower) where the dust particle is seldom completely surrounded by the scrubbing liquid, where the velocities of the dust particle and the scrubbing liquid are seldom the same, and where the ratio of water to gas is seldom so high. Further, it is characteristic of the spray tower for its efficiency to become less as the concentration of the dust in the gases becomes lower, while the efficiency of the Type N Roto-clone (for all practical purposes) is independent of the dust concentration, and actually is higher as the concentration increases.

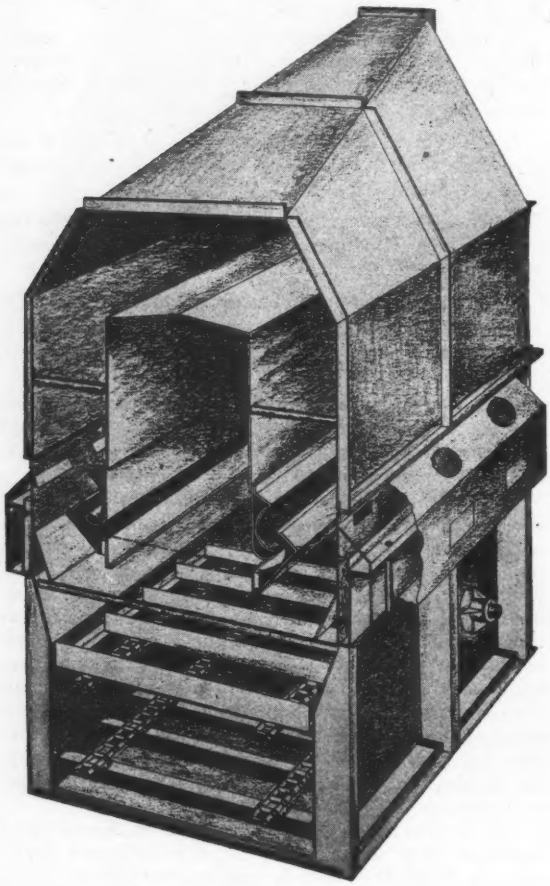


FIG. 1
Type N Roto-clone for Lime Kiln Applications

Pilot Plan Operation

A 1500 c.f.m. industrial size Type N Roto-clone was set up as a pilot unit for a cooperative study between Southland Paper Mills and The American Air Filter Company. This unit handled approximately 1/30 of the volume of the stack gases. This was considered to be of ample size to predict large scale operation. Extended runs were made with this unit and it was very soon apparent that practically all of the entrained lime dust in the stack gases was being removed by the unit. To check the dust load entering and leaving the unit, special gas sampling equipment was used in which a measured volume of gas was passed through cyclones and then through alundum dust collection thimbles. These tests showed the dust removal efficiency to be from 96 to 99% by weight. For all practical purposes, the actual efficiency figures were probably over-shadowed by the inherent errors of dust collection measurement at its best. The problem of the use of the Type N Roto-clone then resolved itself into two other features. One was the transfer of the collected lime back to the system and the second was the role the overflow water from the unit would play in the overall picture.

As the gases entering the pilot Roto-clone from the kiln breeching were approximately 900°F, it was necessary to use a very small precooling shower in the entrance duct to the unit. This was done in order to keep the temperature of the water within the unit below the boiling point. If the water in the unit were to boil, this would disrupt the close tolerances necessary for the water level in front of the impellers. Approximately 1 gallon per minute was introduced to the cooling shower out of which 0.5 gallon per minute was evaporated and passed out through the fan, while the other 0.5 gallon per minute passed over the water level control weir. It was feared that large lime losses would occur in the overflow water as the gases which pass through the Roto-clone contain an enormous excess of CO_2 relative to the CaO contained in the dust. If conversion took place all the way to calcium bicarbonate, quite a bit of the collected lime would in turn be lost by dissolution in the overflow water from the Roto-clone.

Actually, no soluble calcium was present in the overflow at the operating temperature of 160°F., but there was a relatively large concentration of soda as sodium bicarbonate. This soda exists in the stack gases in a sublimed form as Na_2O, which originates in the hot end of the kiln, and it is caught in the pass through the impellers along with the lime dust. The solubility of CO_2 is very low at the elevated temperature of the overflow water, and, assuming that calcium bicarbonate is actually formed at some stage through the unit, it would soon be reprecipitated in the presence of sodium hydroxide and sodium carbonate. This condition fortunately contributed two distinct removal devices for the separation of the recovered materials. The obvious usage of the overflow water containing the soda was to pick it up

with a pump and let it replace part of the fresh water to the first tray in the lime mud washer.

In studying the method of removal of the collected lime from the bottom of the pilot unit, tests were run in which the wet mud was dragged up inclines at various angles and at various rates of speed. This sludge was composed of about 90% calcium carbonate and about 10% CaO, at approximately 50% solids. As the sludge reposed on the bottom of the unit, it could be moved up inclines as much as 45° to the horizontal and at speeds as high as 2 feet per minute. The demonstration of the removal of this sludge could be made only after the unit had operated for some 30 or 40 minutes and had collected enough material to form a layer on the bottom. For this reason, it was necessary to assume that intermittent operation would have to be provided for the large scale unit. It was decided that the removal device for the large units would consist of steel flights mounted on heavy chain to drag the sludge at an angle of 30° to the horizontal. The sludge would be moved until sufficient altitude was gained to deposit it in the mud storage tank feeding the headbox of the kiln. Chains and driving mechanism were constructed stout enough to withstand the starting load of intermittent operation on a cycle of 30 minutes down and 30 minutes running. As the angle of repose of this wet sludge is 90° to the horizontal, it was necessary to have the flights extend the full width of the unit. The speed could be varied from 1 foot to 3 feet per minute by means of interchangeable drive sheaves.

One other purpose of the pilot unit was to determine the upward water velocities possible toward the approach of the water level control which is really an overflow weir. It was also necessary to determine the settling rate of the collected sludge as it was obvious that the upward velocity of the water towards the weir could not exceed the settling rate. Numerous experiments were conducted to determine and verify this settling rate, and it was found to be 1/5 foot per minute. Since the overflow water from the large scale unit was estimated to be approximately 30 to 40 gallons per minute, the total length of the overflow weir was designed to allow an upward velocity of the overflow water of only 1/10 foot per minute. As this was somewhat of a venture into the unknown, the use of 100% safety factor was felt to be necessary.

Large Scale Operation

Based on the predictions set forth in the pilot plant work, two large scale Roto-clones with attendant auxiliaries were designed for operation in parallel. Two units were necessary because distribution of the gases would be difficult in a single unit of the large size required. The impellers are constructed of stainless steel while the housing, breeching, and fan are constructed of wrought iron to withstand the corrosive conditions imposed by moist flue gases with large quantities of CO_2 present. Figure 2 shows the diagrammatic layout of the kiln, Roto-clones, fan, overflow water collection tank, and mud storage tank. Operation was started during the last week of June, 1946, with no serious difficulties. Because the proper sized sheaves were not available, it was necessary to run the sludge ejector chains at a speed slightly in excess of 2 feet per minute. This resulted in a rather murky water from the overflow weirs. Later, the correct size sheaves were obtained, and when the speed was reduced to 1 foot per minute, a practically clear effluent was produced.

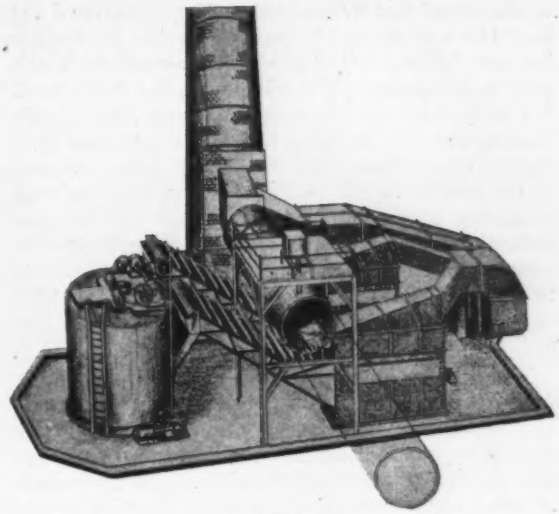


FIG. 2
Installation at Southland Paper Mills

The operating efficiencies of the large scale units are best set forth by the examination of the operating data for the month of August, 1946. The new lime consumption before the introduction of the Roto-clones was 156 pounds of lime per ton of pulp covering a period of January through June, 1946. The August lime consumption ran only 15 pounds of new lime per ton of pulp. Practically all of this 15 pound loss occurs as dregs and dust from the slaker. The operation is simple and requires little attention. The lime kiln operator runs the Roto-clones. This operation requires mere hourly temperature observations to be sure that the cooling showers are not stopped up, and an observation of the overflow weirs to be sure that the water is leaving the unit. The use of almost 100% reburned lime and the use of the high temperature overflow water in the mud washing system has resulted in a better settling mud from the white liquor. Also, the mud averages only 1.2% soda compared to 2.2% when approximately 100 pounds of new lime per ton was used.

Of course, the expense of unloading lime cars and the lime handling within the caustic room has practically been eliminated. Whereas, formerly, from 7 to 8 cars of lime per month were used, the average is now down to about 1 car every 2 months. The dust nuisance of lime from the kiln stack has been entirely eliminated from the mill as far as can be seen by visible inspection. As an example of the seriousness of dust nuisance, the failure of one of the large grinder motors was attributed directly to impregnation of the coils with lime dust. The loss of smaller electrical motors around the mill was probably not viewed so alarmingly because the loss occurs a little at a time. The alleviation of another nuisance, which is not insignificant, was the coating of windshields and cars of the employees of the mill. Studies of the soda loss of the lime kiln system before the Roto-clones were installed showed that approximately 1375 tons of salt cake per year were lost due to sublimation of soda in the hot end of the kiln. This set of conditions existed before the Roto-clones were installed and when the mud entering the kiln averaged 2.2% soda based on the dry solids of the mud.

It was found that 80% of this soda was sublimed and lost. The soda content in the mud leaving the clarifier has now fallen to only 1.2% which necessitates a new plan in calculating the credit due to the Roto-clones for soda recovery. In order to check this, a soda balance was run involving the soda in the mud leaving the white liquor clarifier, the soda being returned to the system by the overflow water, and the soda remaining in the lime after reburning. It was found that within this cycle the soda was completely buttoned up in the system. It is therefore felt justifiable to credit the Roto-clone operation with the full 1375 tons of salt cake a year that would have been lost had it not been installed.

The lime savings have been calculated by taking the following as credits to the Roto-clone operation: (1) savings on new lime not purchased, and (2) savings on lime unloading, handling, and demurrage. The debits are taken as follows: (1) a proportion of labor for operation, (2) cost of electrical power and water, (3) a reasonable allowance for maintenance and repair, and (4) the cost of added fuel to burn the recycled mud.

The balance shows that the installation will pay for itself in approximately 1 year's time, which can be termed much better than the usual return on such an investment, and thereafter will effect a savings directly in lowering mill costs.

Acknowledgment

The authors wish to express their appreciation for the assistance given to them by Charles Carpenter, general superintendent, Melvin Farris, pulp mill superintendent, and George Schnitzer, research chemist, of the Southland Paper Mills, Inc.

The New Fibers

D. Van Nostrand Company has recently issued a new book entitled, "The New Fibers," by Joseph V. and Signe L. Sherman, formerly of Economic Analysts, Inc., New York, N. Y. and Eastman Kodak Company, Rochester, N. Y. respectively. (537 pp. 5½ x 8½). This book is essentially a combination of commercial and scientific information of both the synthetic fibers and the chemically improved natural fibers. It describes the research efforts currently being made to develop both of these groups.

The new improvements in rayon are described in full, including the new high tenacity viscose rayon. The many varieties of rayon and staple fibers are treated separately. Against a background of easily understandable writing, the authors present tables on production, consumption and prices of wool, silk, and rayon. There is an appendix giving a list of about 1600 patents issued in the United States in the past ten years.

Among the subjects covered are: Comparison of fibers; Nylon; Vinyl Resins; Vinylidene Chlorides; Glass Fibers; Polyethylene; Casein Fibers; Soybean Protein; Rayons; New Cellulosic Fibers; Chemical Treatments of Textiles; Appliciations and Trade Names; and Research and the Future of Fibers.

Copies may be obtained from the Book Department of the Technical Association of the Pulp and Paper Industry, 122 East 42nd Street, New York 17, N. Y. at $5.00 per copy.

Qualitative Test for Mineral Fillers in Paper

Dear Mr. Macdonald, Editor of Technical Section:

I would like to draw attention to an unerringly simple test that may possibly find some application in TAPPI methods T 407-m and T 421-m.

The test is for the presence or absence of loading or filler in paper (such as clay, barium sulphate, diatomaceous earth, etc.) and can be carried out with or without the use of optical equipment.

The test is as follows: A few fibers are scraped from an uncoated side of the test sample by means of a scalpel and mounted in cedar oil, balsam, or some such mounting medium between a micro coverglass and a dull black background. Viewed by reflected light with and without the aid of a microscope the fibers from loaded and unloaded samples appear as illustrated in Figs. 1 and 2.

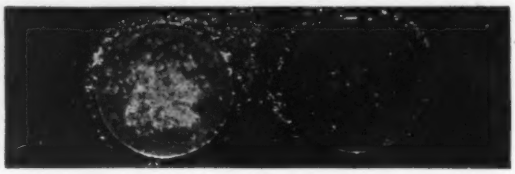


FIG. 1
Photograph—Actual size
Loaded Unloaded

The test can be applied to advantage in analysis for the following:

(a) Determination of amount of coating on paper.

(b) Comparison of physical properties of a known sample with one of unknown constitution.

(c) Analysis of spots or specks in paper. (Often times opaque spots in loaded paper have been found to be caused by nothing more than agglomerates of loading material.)

Thomas Fyfe
Chairman, TAPPI Microscopy Committee

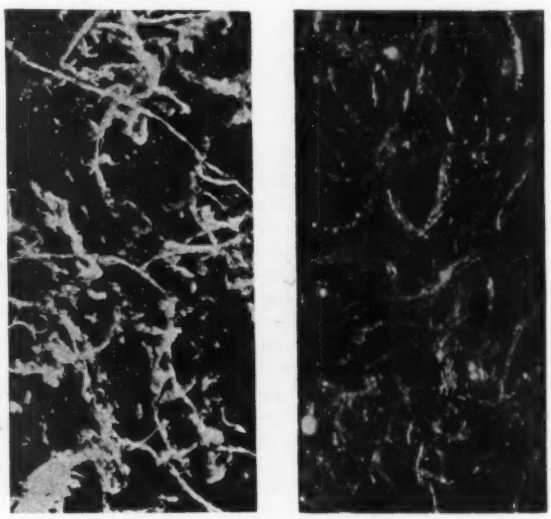


FIG. 2
Photomicrograph—60X
Loaded Unloaded

TAPPI Annual Meeting Program

Hotel Commodore, New York City, February 24-27, 1947

Monday, February 24, 1947

10.00 a.m. GENERAL SESSION (Grand Ball Room)
G. W. Nicholson, President TAPPI, Chairman

1. Secretary's Report, by R. G. Macdonald.
2. President's Address, by G. W. E. Nicholson.
3. Tellers Report.
4. Joint Textbook Committee Report.
5. Technical Merchandising of Paper, by John W. Crosson, The Mead Sales Company, New York, N. Y.
6. Scandinavian Countries Research Organization, by E. C. Jahn, New York State College of Forestry, Syracuse, N. Y.

2:00 p.m. COMMITTEE MEETINGS (Grand Ball Room)

(All committees, unless otherwise indicated will meet to discuss the present and future plans.)

Committee Meetings scheduled for Monday in Grand Ball Room:

Nonfibrous Raw Materials, E. N. Poor, Chairman
Containers, W. B. Lincoln, Jr., Chairman
Graphic Arts, R. H. Simmons, Chairman
Plastics, E. C. Jahn, Chairman
Acid Pulping, G. H. McGregor, Chairman
Alkaline Pulping, K. G. Chesley, Chairman
Mechanical Pulping, R. M. Drummond, Chairman
Deinking, Frederic C. Clark, Chairman
Pulp Purification, W. D. Harrison Chairman
Chemical Products, R. H. Stevens, Chairman
Structural Fibrous Materials, John F. Campbell, Chairman
Preparation of Papermaking Materials, P. P. Gooding, Chairman
Fibrous Materials Testing, E. R. Schafer, Chairman
Nonfibrous Materials Testing, W. F. Hathaway, Chairman
Microscopy, Thomas Fyfe, Chairman
Optical Properties, A. H. Croup, Chairman
Statistics, T. A. Pascoe, Chairman

The TAPPI Local Section Officers will meet in Room E at 4 p.m. Monday.

2:00 p.m. FIBROUS AGRICULTURAL RESIDUES (Room B-C)
S. I. Aronovsky, Northern Regional Research Laboratory, Chairman

1. The Pulping of Straw With Digestion Liquors Containing Sodium Sulphite, by George S. Hannaway, Monsanto Chemical Company, St. Louis, Mo.
2. Evaluation of Nine-Point Strawboard for Corrugating, by Norval F. Wilson, Alton Box Board Company, E. Alton, Ill.
3. Treatment of Combined Straw, by C. J. Willard, Ohio State College, Columbus, Ohio, and R. D. Lewis, Texas Agricultural Experiment Station, College Station, Texas.
4. Agricultural Residues Pulp—Comparison With Typical Wood Pulps, by S. I. Aronovsky, Allen Rhodes and E. C. Lathrop, Northern Regional Research Laboratory, Peoria, Ill.
5. Pulping with Sodium Sulphite to Produce Strawboard, by S. I. Aronovsky, A. J. Ernst, and H. M. Sutcliffe, Northern Regional Research Laboratory, Peoria, Ill.

2:00 p.m. WATER (East Ball Room)
L. B. Miller, Univ. of Cincinnati, Chairman

1. Paper, by Daniel J. Saunders, Permutit Company, New York, N. Y.
2. The Interstate Commission on the Delaware River Basin, by James H. Allen, Incodel, Philadelphia, Pa.
3. Hot Process Water Conditioning—New Developments, by C. E. Joos, The Cochrane Corporation, Philadelphia, Pa.
4. Modern Water Chlorination, by L. L. Hedgepeth, Virginia State Water Control Board, Richmond, Va.
5. Progress in Pollution Abatement in the Tennessee Valley, by W. G. Stromquist, Tennessee Valley Authority, Chattanooga, Tenn.
6. Biochemical Oxygen Demand — B.O.D. — A New Expression for the Papermaker, by Miss Louise E. McGrath, Booth Chemical Company, Elizabeth, N. J.

2:00 p.m. ENGINEERING (West Ball Room)
J. W. Hemphill, Johns Manville Company and J. E. A. Warner, Robert Gair Company, Chairmen

1. Drive for the Carthage Chipper, By J. Edgar Rhoads, J. E. Rhoads & Sons, Philadelphia, Pa.
2. The Sandy Hill-Spencer Dandy Roll Drive, by Henry D. Johnston, Strathmore Paper Company, W. Springfield, Mass.
3. Spot Conversion for Adjustable Speed, by W. R. Hough and J. L. Van Nort, Reliance Electric and Engineering Company, Cleveland, Ohio.

3a. Spot Conversion Drives in Paper Mills, by Richard Nelson, Kimberly-Clark Corporation, Neenah, Wis.

4. Heat Balance and the Paper Machine Drive, by R. R. Baker, Westinghouse Electric & Mfg. Company, E. Pittsburgh, Pa.
5. A Study of Certain Factors Affecting the Filtration of Smoke by Fibrous Materials, by J. J. Perot, The Flintkote Company, E. Rutherford, N. J. (By Title)

2:00 p.m. Fundamental Research (Room A)
Harry F. Lewis, Inst. Paper Chemistry, Chairman

Round Table Discussion on Committee Projects
The Decomposition of Methylated Sprucewood, by F. E. Brauns and Jack Yirak, Inst. Paper Chemistry (By Title)

Tuesday, February 25, 1947

9:15 a.m. OPTICAL PROPERTIES SPONSORING MEETING OF INTER-SOCIETY COLOR COUNCIL (Grand Ball Room)
A. H. Croup, Hammermill Paper Company, Chairman

1. The Paper Man's Interest in Color, by A. H. Croup.
2. Colorimetric Standardization in Industry, by Ralph M. Evans.

3. Color-Order Systems from Material Standards in Like-Media to Systems that Represent Increasing Definitions of a Useful Color Space, by Carl E. Foss.
4. Relation of Gloss to Color, by Richard S. Hunter, Inst. Paint and Varnish Research, Bethseda, Md.

9:15 a.m. PACKAGING MATERIALS TESTING (East Room)
George R. Sears, Inst. Paper Chemistry, Chairman

Symposium on Water Vapor Permeability at Low Temperatures.

1. The Gravimetric (Weighed-Cell) Method of Determining Water Vapor Permeability, by F. T. Carson, National Bureau of Standards, Wash., D. C.
2. Polytechnic Institute of Brooklyn Method, by W. H. Aiken, Goodyear Tire & Rubber Company Akron, Ohio.
3. A Flow Method for Determining Water Vapor Permeability at 0°F, by F. H. Cherepow, Marathon Corporation, Menasha, Wis.
4. Use of Electric Hygrometer in WVP Measurements, by J. A. Van den Akker, Inst. Paper Chemistry.
5. A Method for Locating Points of Gas Leakage in Packages and Packing Materials, by H. H. Hartwig, Marathon Corporation, Menasha, Wis.

9:15 a.m. MECHANICAL PULPING AND STRUCTURAL FIBROUS MATERIALS (Room B-C)
R. M. Drummond, International Paper Company, and John F. Campbell, Flintokote Company, Chairmen

1. Grinding of Quaking Aspen for Use in Printing Papers, by Axel Hyttinen, G. E. Mackin, and E. R. Schafer, Forest Products Laboratory, Madison, Wis.
2. Production of Semichemical Pulp and Progress in Continuous Cooking, by R. D. Kehoe, Paper & Industrial Appliances, New York, N. Y.
3. An Outline of the Insulating Board Industry, by Carl G. Muench, The Celotex Company, Marrero, La.
4. Round Table Discussion on Freeness Testing in the Insulating Board Industry, led by Glenn C. Kimble, Minnesota & Ontario Paper Company, International Falls, Minn.
5. Round Table Discussion on Test Methods for Insulating Board Products, led by G. Basil Brown, Johns-Manville Laboratory, Manville, N. J.
6. Penetration of Water in Insulating Board, by Willmer A. Wink and J. Van den Akker, Inst. Paper Chemistry, Appleton, Wis. (By Title)
7. Experiments in the Production of Insulating Board and Hardboard from Sawmill and Logging Wastes, by S. L. Schwartz, J. C. Pew, and E. R. Schafer, Forest Products Laboratory, Madison, Wis. (By Title)
8. Additional Data on the Recovery of Wet Pulp Mats from Compression Deformations, by C. O. Seborg and F. A. Simmonds, Forest Products Laboratory. (By Title)
9. Effect of Preimpregnation, Pulping Degree, and Pulping Temperature on the Yield and Properties of Semichemical Pulp, by E. L. Keller and J. N. McGovern, Forest Products Laboratory. (By Title)

9:15 a.m. ACID PULPING (West Ball Room)
G. H. McGregor, Minnesota & Ontario Paper Company, Chairman

1. Modern Sulphite Acid Making, by Thomas Gerace, St. Regis Deferiet, N. Y.
2. Yield and Quality of Pulp and Waste Liquor in Sulphite Pulping of Soft Woods, by M. Baum, J. W. Bard, J. R. Salvesen and G. J. Brabender, Marathon Corporation, Rothchild, Wis.
3. The Recovery of Crude Para Cymene in a Sulphite Mill, by John G. Lewis, Rayonier, Inc., Fernandura, Fla.
4. Production of Fodder Yeast from Wood Sugars Contained in Sulphite Waste Liquor and Wood Hydrolizate, by E. E. Harris, Martha L. Hannan, and Ralph R. Marquart, Forest Products Laboratory, Madison, Wis.
5. Tanning Properties of Lignosulphates Produced by Different Cooking Conditions, by M. A. Buchanan, Robert M. Lollar, and Donald D. Niemeyer, Inst. of Paper Chemistry, Appleton, Wis.

9:30 a.m. Papermaking Committee (Room E)
A. E. Bachmann, Missiquoi Corp., Chairman

9:30 a.m. Mill Instrument Control Committee (Room F)
R. W. Porter, Chemical Engineering, Chairman

2:00 p.m. OPTICAL PROPERTIES AND INTER-SOCIETY COLOR COUNCIL (Grand Ball Room)
A. H. Croup, Hammermill Paper Company, Chairman

4. Spectrophotometry, by Norman Barnes.
5. I.C.I. Standard Observer and Coordinate System and Their Use in Studies of the Color of Paper, by J. A. Van den Akker, Inst. of Paper Chemistry.
6. Interrelation of Color Specifications, by Miss Dorothy Nickerson.
7. Color Engineering, by Frederick H. Rohr.

2:00 p.m. PACKAGING MATERIALS TESTING AND CONTAINERS (East Ball Room)
George R. Sears, Inst. Paper Chemistry, and W. B. Lincoln, Jr., Inland Container Company, Chairmen

1. A Method for the Determination of Water Vapor Permeability at Low Temperatures, by S. W. Pierce and J. F. Helms, American Can Company, Maywood, Ill.
2. Use of the Ottawa Test Sand in the Evaluation of Sealed Flexible Packages, by L. C. Cartwright, Foster D. Snell, Inc., Brooklyn, N. Y.
3. The Effect of the Adhesive on the Quality of Fiberboard, by Ralph E. Green, Thwing-Albert Instrument Company, Robert H. Sams, and John H. Wills, Philadelphia Quartz Company, Philadelphia, Pa.
4. Postwar Developments with Emulsified Asphalt Sizing in Cylinder Board, by E. M. Lorenzini, American Bitumuls Company, San Francisco, Calif.
5. Round Table Discussion of Packaging Testing Problems, led by Dr. Sears.
6. Method of Evaluating the Fungicidal Properties of Treated Paper and Paperboard, by B. F. Shema, Inst. Paper Chemistry (By Title)

2:00 p.m. PULP PURIFICATION (West Ball Room)
W. D. Harrison, Ecusta Paper Company, Chairman

1. Pulp Bleaching With Mixtures of Chlorine and Chlorine Dioxide, by G. P. Vincent, Mathieson Alkali Works, New York, N. Y.
2. Chlorite Bleaching of Southern Pine Kraft Pulp, by W. P. Lawrence, Champion Paper & Fibre Company, Canton, N. C.
3. Comparative Studies in the Chlorination of Woodpulp, by Oliver S. Sprout, Jr., and Thomas W. Toovey, Pennsylvania Salt Mfg. Company, Philadelphia, Pa.
4. The Cold Alkaline Purification of Wood Cellulose. I. Some Effects of Bleaching and Acid Hydrolysis on Resistant Pentosans, by Alexander Meller, Australian Paper Manufacturing Company, Melbourne, Victoria, Australia (By Title)

2:00 p.m. DRYING AND VENTILATING (Room B-C)
A. E. Montgomery, J. O. Ross Engineering Corporation, Chicago, Ill., Chairman
Round Table Discussion on Paper Drying Problems and Drying Rate Project, led by Mr. Montgomery.

2:00 p.m. Pulp Testing Committee (Room E)
L. V. Forman, Inst. of Paper Chemistry, Chairman

Wednesday, February 26, 1947

9:15 a.m. STATISTICS (Room B-C)
T. A. Pascoe, Nekoosa-Edwards Paper Company, Port Edwards, Wis., Chairman.

1. Quality Control for the Pulp and Paper Industry, by Charles A. Bicking, Hercules Powder Company, Wilmington, Del.
2. Method for Evaluating and Reporting Product Quality by John B. Catlin, and J. G. Strieby, Kimberly-Clark Corporation, Neenah, Wis.
3. The Variability of Strength Tests on Fibreboard, by Geoffrey Beall and R. C. McKee, Inst. Paper Chemistry, Appleton, Wis.
4. Sources of Variability in Water Vapor Permeability Determination, by Maryland S. Renner, Dewey & Almy Chemical Company, Cambridge, Mass.
5. Nomographic Treatment of the Results from Cupraethylenediamine Method of Determining the Viscosity of Cellulose, by Geoffrey Beall, Inst. of Paper Chemistry (By Title)
6. Quantitative Treatment of a Density Distribution Pattern on Photographic Paper as Produced by the Disturbance of a Spotlight Galvanometer, by Geoffrey Beall, Inst. of Paper Chemistry (By Title)

9:15 a.m. PAPER DEINKING AND ALKALINE PULPING (West Ball Room)
Frederic C. Clark, New York, N. Y., and K. G. Chesley, Crosset Lumber Company, Chairmen

1. Alkali and Heat Recovery in Deinking Systems, by H. P. Bailey, and A. H. Nadelman, International Paper Company, Niagara Falls. N. Y.
2. Modern Recausticizing Plant Practice, by Robert F. Clemens, Dorr Company, New York, N. Y.
3. The Removal of Salt Cake Fumes from Sulphate Recovery Furnace Stack Gases by Scrubbing, by T. T. Collins and C. R. Seaborne, Thilmany Pulp & Paper Company, Kaukauna, Wis., and A. W. Anthony, Jr., Pease-Anthony Equipment Company, Waltham, Mass.
4. Progress Report on Continuous Refining of High Yield Kraft Pulps with Disk Refiners at High Temperature and Alkalinity, by D. Manson Sutherland, Sutherland Refiner Company, Trenton, N. J.
5. Influence of Sodium Thiosulphate and Sodium Sulphite in the Sulphate Pulping of Engelman Spruce, by Mark W. Bray and Bernard Singer, Forest Products Laboratory, Madison, Wis.
6. Sulphate Pulping of Douglas Fir, Western Hemlock, Pacific Silver Fir, and Western Red-Cedar Logging and Sawmill Waste, by Mark W. Bray, and J. Stanley Martin, Forest Products Laboratory. (By Title)

9:15 a.m. PLASTICS (East Ball Room)
E. C. Jahn, N. Y. State College of Forestry, Chairman

1. Beater Sizing with the Silicones, by Carl J. Bergendahl and C. E. Libby, New York State College of Forestry, Syracuse, N. Y.
2. Mechanical Properties of Polymers as Related to Their Structure, by Herman Mark, Polytechnic Inst. of Brooklyn, Brooklyn, N. Y.
3. Developments in the Treatment of Paper With Synthetic Resins, by W. L. Abramowitz, American Resinous Chemical Corporation, Peabody, Mass.
4. Resinography, by T. G. Rochow, G. E. Coven and E. G. Davis, American Cyanamid Company, Stamford, Conn.
5. The Properties of Flexible Impregnated Sheets, by A. W. Oliner and F. W. O'Neil, New York State College of Forestry. (By Title)
6. Paper for Plastic Luminates, by John G. Petzer, The Formica Insulation Company, Cincinnati, Ohio.
7. Combining Resins and Paper, by E. S. Bauer, Monsanto Chemical Company, Springfield, Mass.

9:15 a.m. Engineering (Room A)
E. F. Burns, International Paper Company, and J. W. Hemphill, Johns-Manville Sales Company, Chairmen
Round Table Discussion on the 1947 Engineering Conference.

9:30 a.m. Packaging Materials Testing Committee (Room E)
G. R. Sears, Chairman

2:00 p.m. COATING AND NONFIBROUS MATERIALS TESTING (West Ball Room)
R. M. K. Cobb, Lowe Paper Company, Ridgefield Park, N. J., and W. F. Hathaway, Kalamazoo Vegetable Parchment Company, Parchment, Michigan, Chairmen

1. How to Determine the Desirable Rheological Properties of Coatings, by Henry Green, Interchemical Corporation, New York, N. Y.
2. Adhesion of High Polymers to Cellulose, by A. D. McLaren, Polytechnic Institute of Brooklyn, Brooklyn, N. Y.
3. Application of Starch Viscosity to the Paper Industry, by W. G. Bechtel, Corn Industries Research Foundation, and C. C. Kesler, Penick & Ford Ltd., Cedar Rapids, Iowa.
4. Effect of Urea Resins on Starch Clay Coating Compositions, by P. S. Hewitt, R. E. Carter, and R. J. Church, Reichhold Chemicals, Inc., Detroit, Mich.
5. Testing of Clays for Paper Machine and Brush Coating, by Ivan L. Lester, and S. C. Lyons, Georgia Kaolin Company, Dry Branch, Ga.

2:00 p.m. PLASTICS (East Ball Room)
E. C. Jahn, Chairman

1. Repulping of Melamine Resin-Treated Wet Strength Paper, by Donald D. Niemeyer and L. V. Forman, Inst. of Paper Chemistry.
2. A Study of the Wet-Strength Mechanism—The Effect of Melamine Resin on the Bonding of Paper Fibers, by D. J. Salley and A. F. Blockman, American Cyanamid Company, Stamford, Conn.
3. Influence of Oxidation of Pulp on Wet-Strength, by Milton O. Schur and R. M. Levy, Ecusta Paper Company, Pisgah Forest, N. C.
4. Round Table Discussion of Wet-Strength, led by K. M. Britt, Scott Paper Company, Chester, Pa.

1:45 p.m. MILL INSTRUMENT CONTROL (Room B-C)
R. W. Porter, Chemical Engineering, Chairman

1. A General Study of Kraft Instrumentation, by Robert M. Brown, Stadler-Hurter & Company, Montreal, P. Q.
2. Importance of Chart Records to Efficient Kraft Mill Operation, by Robert R. Fuller, Gulf States Paper Company, Tuscaloosa, Ala.
3. Measurement and Control of pH in Pulp and Paper Mills, by A. L. Chaplin, American Cyanamid Company, New York, N. Y.

2:00 p.m. Microscopy (Room A)
Thomas Fyfe, Eastman Kodak Company, Chairman

1. Evaluation of Different Methods of Speck Counts in Paper, by John Graff, Inst. of Paper Chemistry.
2. Round Table Discussion of Microscopy Committee Projects, led by Mr. Fyfe.

Thursday, February 27, 1947

9:00 a.m. PAPERMAKING (West Ball Room)
A. E. Bachmann, Missisquoi Corporation, Sheldon Springs, Vt., and O. E. S. Hedbring, United Paperboard Company, Thompson, N. Y., Chairmen

Motion Picture Pulping and Cleaning Old Paper Stock, by Shartle Bros. Machine Company, Middletown, Ohio.

Symposium on White Water Handling.

1. White Water System for Cylinder Board Mill, by O. E. S. Hedbring.
2. White Water Clarification by Means of the Marx Filter, by Clyde A. Benson, New York, N. Y., and Harold E. Brakewood, National Folding Box Company, New Haven, Conn.
3. Variations and Similarities of Paperboard Mill White Waters, by Willam Rudolfs and E. J. Axe, Rutgers University, New Brunswick, N. J.
4. Diatomaceous Filteraid Filtration of Paper Mill Effluents, by Gordon G. Halvorsen, The Dicalite Company, New York, N. Y.
5. Studies in Slime Control — 1946, by J. W. Appling, J. F. McCoy, and B. F. Shema, Inst. of Paper Chemistry.

9:00 a.m. PREPARATION OF PAPERMAKING MATERIALS AND CHEMICAL METHODS (Room B-C)
P. P. Gooding, Strathmore Paper Company, W. Springfield, Mass., and John C. Tongren, Hammermill Paper Company, Erie, Pa., Chairmen

1. Studies in Rosin Sizing, The Effect of Alumina on Rosin Sizing, by Miss Donna Price, Hercules Powder Company, Wilmington, Del.
2. Cotton Linter Pulp, by William H. Jones, Railway Supply & Mfg. Company, Cincinnati, Ohio.
3. Review of Some Studies Relating Chemical Constitution of Pulps to Their Physical Properties, by T. A. Pascoe, Nekoosa-Edwards Paper Company, Port Edwards, Wis.
4. A Micro Iodometric Method for the Determination of Glue or Gelatin in Paper, by G. E. Naponen, M. J. Dries, and A. S. O'Brien, Eastman Kodak Company, Rochester, N. Y.
5. Sodium Carboxymethylcellulose for Papermaking, by Miss Eleanor F. Horsey, Hercules, Powder Company, Wilmington, Del.
6. Determination of Carboxymethylcellulose in Paper, by R. W. Eyler and R. T. Hall, Hercules Powder Company.
7. Effect of Sample Preparation on Analytical Values for Alpha-Cellulose, Copper Number, and Cuprammonium Viscosity, by B. L. Browning, Inst. of Paper Chemistry. (By Title)
8. The Determination of Alpha-Cellulose in Unbleached Pulps, by Paul F. Cundy and Maxine Murphy Beck, Inst. of Paper Chemistry. (By Title)

1:15 p.m. ANNUAL LUNCHEON (Grand Ball Room)
G. W. E. Nicholson, Presiding

1. Introduction of Guests.
2. Address by Gerald Wendt, Editor of Science Illustrated, McGraw-Hill Company, New York, N. Y.
3. The TAPPI Medal Presentation to Peter J. Massey, Bryant Division, St. Regis Paper Company by Lyman Beeman, St. Regis Paper Company.
4. Presentation to the TAPPI Chicago Section.
5. Presentation to the TAPPI Ohio Section.

Fuels, Combustion and Furnaces

The McGraw-Hill Book Company has recently issued "Fuels, Combustion and Furnaces," by John Griswold, Professor of Chemical Engineering at the University of Texas. This volume is included in the Chemical Engineering Series of McGraw-Hill (496 pp. 9¼ x 6). This book is unusually broad in scope and is an up to date chemical engineering text. It covers the fundamental background of the more essential specific details of the technology, combustion properties, and utilization of fuels, as well as apparatus and equipment involved. The book assumes a prerequisite knowledge of chemistry, physics and mathematics equivalent to the third year of a university chemical engineering curriculum.

Among the subjects covered are: Combustion stoichiometry, fuels, gas and oil burners, stokers and pulverized coal burners, heat transmission, firebox and chimney considerations, tube heaters, furnace refractories, and process furnaces and kilns.

Copies may be obtained from the Book Department of the Technical Association of the Pulp and Paper Industry, 122 East 42nd Street, New York 17, N. Y., at $5.50 per copy.

TAPPI Notes

E. H. Niederauer, formerly of the Kingsport, Tenn., Division of Mead Corporation, is now superintendent of the Escanaba Paper Company, Escanaba, Mich.

Index, Technical Section, Paper Trade Journal Volume 123, July to December, 1946

Prepared by Clarence J. West, Chairman, Committee on Abstracts and Bibliography, TAPPI

The page numbers in the following index refer to the continuous pagination of the *Technical Section* and not to the individual numbers of the PAPER TRADE JOURNAL. Since, through an oversight, the last page of the *Technical Section* for November 21 was incorrectly numbered 166 and this error was continued to the end of the volume, this duplicate numbering has been indicated by the letter *a*, as shown in the accompanying table.

A slight change is made in the form of the present index, in that the author index is segregated from the subject index.

To facilitate reference to the individual numbers of the PAPER TRADE JOURNAL, the following table of the pagination of the *Technical Section* appearing in each of the 26 numbers of Volume 123 is given.

No. 1	July 4	1- 12	No. 14	Oct. 3	155 -166
No. 2	July 11	13- 24	No. 15	Oct. 10	167 -198
No. 3	July 18	25- 36	No. 16	Oct. 17	199 -208
No. 4	July 25	37- 48	No. 17	Oct. 24	209 -220
No. 5	Aug. 1	49- 60	No. 18	Oct. 31	221 -232
No. 6	Aug. 8	61- 72	No. 19	Nov. 7	233 -242
No. 7	Aug. 15	73- 80	No. 20	Nov. 14	243 -254
No. 8	Aug. 22	81- 92	No. 21	Nov. 21	255 -265, 166a
No. 9	Aug. 29	93-104	No. 22	Nov. 28	167a-178a
No. 10	Sept. 5	105-116	No. 23	Dec. 5	179a-190a
No. 11	Sept. 12	117-128	No. 24	Dec. 12	191a-202a
No. 12	Sept. 19	129-140	No. 25	Dec. 19	203a-214a
No. 13	Sept. 26	141-154	No. 26	Dec. 26	215a-224a

AUTHOR INDEX

A

Aries, Robert S. Lignin as a fertilizer material 255
Aronovsky, S. I. Meeting of TAPPI Fibrous Agricultural Residue Committee 122

B

Bialkowsky, H. W. Sulphite pulp production records—their value, significance, and extent 203
Borlew, P. B., and Pascoe, T. A. Consumption of NaOH and Na_2S in kraft pulping 194
Bray, Mark W. See Schwartz, S. L.
Brown, Harold H. Paper mill operating efficiencies 86
Browning, B. L., and Calkin, John B. The fatty acids in tall oil—a literature review 215a
Burrell, H. See Vander Valk, C. J.
Byman, Leonard. Tall oil from the consumer's viewpoint 173a

C

Calkin, John B. See Browning, B. L.
Cameron, D. D. See Price, D.
Cowherd, Robert D. Application of the differential manometer to the measurement of fluid density and specific gravity with special reference to temperature effects 159
——. Conductometric method of vapor saturation measurement as applied to automatic gas-off control of a kraft digester—a progress report 260
Crandall, Henry C., and Enderlein, G. F. Effect of diluent black liquor in sulphate pulping 16
Croup, A. H. See Parsons, J. L.

D

Dahlstrand, Hans P. Turbine installation and maintenance 170
Davis, Donald W. Isostatic method for determining the gas permeability of sheet materials 97
Dickerman, G. K. See Saeman, Jerome F.
Dixon, L. F. Flax straw procurement.. 231

E

Ekman, S. E. Sulphite pulping and pulps 88
Enderlein, G. F. See Crandall, Henry C.

F

Fennell, F. L. See Kingsbury, R. M.
Feola, John A., and Libby, C. E. The suitability of yellow birch for glassine paper manufacture 146
Franklin, John N. Instrumentation in pulp and paper mills 30
Fuller, Robert R. See Thielens, W. P.

G

Graham, Jack B. Ground water for industrial use in the United States.... 51

H

Hardenbergh, W. A. War-time activities of the Engineering Division and the Sanitary Corps, U. S. Army..... 20
Henson, W. A. See Stanton, G. W.
Holveck, Joseph R. Ring type hydro barker 13
Huebner, W. C. Future trends in requirements by user of printing..... 1

J

Jones, William H. First cut linter cotton for papermaking 93

K

Kahn, J. M. See Kominek, E. G.
Kenyon, W. Houston, Jr. Patent reform and the technical man..... 81
Kingsbury, R. M., Simmonds, F. A., Mills, R. T., and Fennell, F. L. Bleaching aspen neutral sulphite semichemical pulp with sodium peroxide.. 124
Kominek, E. G., and Kahn, J. M. Clarification of green liquor..... 79

L

Landes, C. G. TAPPI survey of paper coating literature for 1945..... 73
Laramore, F. E. Relative merits of 200, 400, 600, and 1200 pound pressure plants for steam and power generation 189
Lewis, W. M. Ground water supply and its production 117
Libby, C. E. See Feola, J. A.; Skoggard, C. O.; Tasker, C. W.
Locke, Edward G. See Saeman, Jerome F.

M

Macdonald, R. G. TAPPI and the strawboard industry 129
McGovern, John N. Use of bleached aspen semichemical pulp in groundwood book paper 243
McIntosh, William, Jr. Kraft mill maintenance 196
Meesook, Boonyium, and Purves, C. B. Comparative estimations of carbonyl and carboxyl groups in chromium trioxide and hypochlorous acid oxycelluloses and oxyxylans 223
Meller, Alexander. Hot alkaline purification of cellulose. II. Cooking of pinewood by the sulphate process in one and two stages, and hot alkaline purification of pine sulphate pine.... 219a
Miller, Lewis B. Water requirements of industry 233
Mills, R. T. See Kingsbury, R. M.
Montgomery, A. E. Heat transfer calculations for paper machines..... 155
Morgen, R. A. See Walker, Robert D., Jr.
Montigny, R. de, and Zborowski, P. The rapid measurement of an index of fiber length. I. Description of the test method. II. Some relationships of the index to pulp properties and indications of its use for stock preparation control 236, 167a

P

Parsons, J. L., and Croup, A. H. Color aptitude test—1944 experimental edition 199
Pascoe, T. A. See Borlew, P. B.
Patterson, W. S. Forced circulation boilers 109
Poor, E. N. Nonfibrous raw materials report—1945 37
Price, D., and Cameron, D. D. Rosin sizing. I. Use of sulphuric acid in sizing 205a
Pringle, George H. Organization and functioning of the maintenance department 187
Purves, C. B. See Meesook, Boonyium.

R

Reed, Robert F. Curling of lithographic papers 5
Rhoads, J. Edgar. Leather belting on paper mill machinery..... 49
Rhodes, R. K. White mineral oil and petrolatum in the manufacture of specialty papers 141
Robertson, Reuben B. Thrift versus drift in forest practice..... 167

S

Saeman, Jerome F., Locke, Edward G., and Dickerman, G. K. The production of wood sugar in Germany and its conversion to yeast and alcohol..... 132
Schwartz, S. L., and Bray, Mark W. Effect of continuous liquor flow in pulping by the sulphate process..... 212
Senko, Steven. Supertherm heating system 191
Shaw, E. C. Hydraulic barking of small logs 61
Shema, B. F. Method for evaluating the fungicidal properties of treated paper and paperboard 179a
Simmonds, F. A. See Kingsbury, R. M.
Simmons, Robert H. Developments in the graphic arts—1945 ..... 191a
Skoggard, Carl O., and Libby, C. E. Experimental sulphite pulping of eastern white pine (*Pinus strobus* L.)..... 43
Stanton, G. W., and Henson, W. A. Properties of saran coating latex.... 68
Strohecker, H. Ross. Corrosion resistant metal covered rolls..... 128
Sutherland, D. Manson. Modern continuous beating and refining systems.. 25

T

TAPPI. Abrasion resistance of paper and paperboard 23
——. Adhesiveness of seals and closures for packages 10
——. Analysis of sodium silicate..... 212a
——. Cellulose in pulp..... 203a
——. Cellulose in wood..... 217a
——. Erasing quality of paper..... 144
——. Moldability (crease retention) of wrapping paper 202
Tasker, C. W., and Libby, C. E. Manufacture of viscose from sugar maple (*Acer saccharum*, Marshall)..... 181a
Thielens, W. P., and Fuller, Robert R. Collector for sulphate soap 221
Tousley, Rayburn D. Economic and market aspects of ethyl alcohol from sulphite waste liquor..... 105

U

Urban, Arnold. Experiences with a spreader stoker installation..... 183

V

Vallandigham, V. V. Forecasting printability by oil absorption measurements 209
Vander Valk, C. J., and Burrell, H. Tall oil in printing inks..... 249

W

Walker, Robert D., Jr., and Morgen, R. A. Protein feed from sulphite waste liquor 63
West, Clarence J. U. S. patents.....58, 253
Wilson, William S. Mechanism of the ink penetration tests..... 198a

Z

Zborokski, P. See Montigny, R. de.

SUBJECT INDEX, VOLUME 123

A

Abrading machine
  Abrasion test 23
  Erasure test 144
Adhesives 196a
  Coating agents, review..... 74
  Seals, test for 10
Alum 39
  Sulphuric acid, use of, with, in sizing 209a
Aluminum foil, gas permeability..... 103
Aspergillis niger 136
  Mildewproofness test organism.... 179a

B

Barker
  Hydraulic 13, 61
    Conveyor system 61
  Ring-type hydro 13
Barking, small logs..... 61
Beating
  Continuous system 25
  Cotton linters halfstuff..... 96
Belts, leather 49
Bergius wood-sugar process..... 133
Bibliography, tall oil..... 178a
Biosyn 134, 136
Biosyn process 137
Black liquor
  Evaporation, effect if sulphate soap removal 221
  Sodium hydroxide concentration during cook 194
  Sodium sulphide concentration during cook 195
  Sulphate process, use in..... 16
  Sulphate soap collector..... 221
Bleach liquor, sodium, advantages of... 37
Bleaching
  Aspen neutral semichemical pulps.. 124
  Semichemical pulps 124
  Sodium peroxide 124
  Sulphite pulp 91
Board, patent coated, oil resistance..... 210
Board testing
  Abrasion resistance 23
  Fungicidal properties 179a
Boiler house, instrumentation in..... 30
Book paper
  Aspen pulp only..... 248
  Aspen semichemical pulp in..... 243
Book review
  Chemistry of silicones 190a
  Colloids 62
  Economics in one lesson..... 232
  Emulsion technology 104
  Handbook of chemistry..... 259
  Lime manufacture 131
  Modern organic finishes..... 15
  Modern plastics 180a
  New riches from soil..... 224a
  Personality and English in technical personnel 235
  Photomicrography in theory and practice 232
  Physical methods of organic chemistry 22
  Physics of cellulose fibers..... 134
  Protective and decorative coatings.. 108
  Rubber in engineering..... 92
  Steam trapping and air venting..... 104
  What industry owes to chemical science 235

C

Calcium acetate method for CO groups.. 226
Calcium lignosulphonate, effect on bean production 257
Carbohydrates, carbonyl content..... 228
Carbon dioxide permeability, method for 100
Carbonyl groups, estimation of..... 223
Carboxylic acid groups, estimation of.. 223
Casein 39
Cellophane
  Gas permeability 102
  Nitrogen permeability 104
Cellulose
  Oxidation with chromium trioxide.. 225
  Pulp, determination in 203a
  Wood, determination in 217a
Cellulose acetate
  Gas permeability 102
  Nitrogen permeability 104
Chaetomium globosum, test organism for mildewproofness 179a
Chlorine 38
Clarifiers (caustic room), alloys for.... 197
Clay 40
Closure, adhesive strength, test for.... 10
Coated fabrics, surface evaluation..... 192a
Coating
  Decorative, review 76
  Machine, review 75
  Printing papers, review..... 73
  Protective, review 76
  Review, 1945 73
  Saran resin 68
Color Aptitude Test..... 199
Color matching, aptitude test for..... 200
Containers, closures and seals, test of.. 10
Corn sugar 42
Costs, relation to instrumentation..... 36
Cotton linters
  Chemical analysis 96
  Oxidation
    Chromium trioxide 225
    Hypochlorous acid 226
  Papermaking material 93
  Purification 94
  Uses 95
Cotton textile industry, water requirements 234
Curl
  Causes of 6
  Edge-set 7
  Inherent 7
  Lithographic paper 5
  Moisture 7
  Reel 7
  Structural 8
  Types of 7

D

Delmhorst moisture detector..... 123
Density
  Definition 159
  Measurement
    Differential manometer for.... 159
    Temperature factor 159
Diffusers, alloys for..... 197
Digester
  Kraft
    Alloys for 197
    Gas-off controller 260
    Gas-stream, water-vapor partial pressure measurement in.... 261
  Sulphite 89
    Control instruments for..... 31
Digester room, value of records in..... 205
Drier
  Conductance coefficient 155
  Drying rate, factors in..... 156
  Heat transfer, factors in..... 155
  Local coefficients 155
Drying, rate of, factors in..... 156
Dyestuffs 40

E

Eastern white pine
  Chemical properties 47
  Multistage pulping 46
  Physical properties 44
  Sulphite pulping 43
Efficiency factor for paper mills..... 86
Electronic moisture measuring devices.. 192a
Electronics, applications in graphic arts 196a
Electronographic press 3
Employees, relation to instrumentation.. 32
Enzymes 40
Etching ink 192a
Ethyl alcohol
  Pacific Northwest, production in.... 108
  Postwar demand and supply..... 107
  Production costs 106
  Sulphite waste liquor, economics of 105
  Wood sugar, fermentation of..... 134
Ethylcellulose, gas permeability..... 102
Evaporators, alloys for..... 197
Exciter, steam turbine drives, inspection 180

F

Fatty acids in tall oil..... 215a
Fermentation
  Sulphite waste liquor..... 64
  Wood sugar 132
Flax straw
  Baling methods 231
  Procurement methods 231
  Purchasing, methods of..... 232
  Stacking of bales..... 232
Flow meters in boiler house..... 30
Fluorescent lighting 196a
Fly ash collector 185
Food protein, wood sugar as source.... 135
Forestry, thrift vs. drift..... 167
Freeness control in refining..... 27

G

G. E. Film thickness gage..... 192a
Gadi process 193a
Gas permeability, isostatic method..... 97
Generators, steam, turbo-driven, inspection 180
Glassine
  Gas permeability 102
  Yellow birch pulp for..... 146
Glue 40
Glycerin 42
Glycols 42
Governors, steam turbines..... 172
Graphic arts, review, 1945..... 191a
Graphoil 191a
Green liquor, clarification..... 79

H

Hart moisture meter..... 123
Heating, supertherm system..... 192
Hydrogen ion concentration
  Sizing, effect on..... 206a
  Yeast growth, effect on..... 65

I

Infrared rays, plate making, use in.... 196a
Ink trouble chart..... 193a
Instrumentation 30
  Cost factors 36
  Maintenance department, responsibility of 188
  Management, relation of..... 35
  Personnel, relation of..... 32
  Repair shop for..... 34
Invert sugar 42
Isostatic method for gas permeability.. 98

K

Korea, papermaking in..... 57
Koroseal, gas permeability..... 102
Kraft mill
  Alloys, use of 196
  Digester room, alloys in..... 197
  Liquor lines, alloys for... 198
  Maintenance problems 196
Kraft process
  Continuous liquor flow in..... 212
  Sodium hydroxide consumption in.. 194
  Sodium sulphide consumption in.... 194

L

Laminating, synthetic resins for..... 41
Leather belting 49
Lignin
  Bean production, effect on..... 257
  Fertilizer value 255
  Potato production, effect on 258
  Soil, mineral content, effect on..... 258
Lime 38
Linoleic acid in tall oil..... 215a
Lubrication
  Maintenance department, responsibility of 188
  Steam turbine 176
Luxometer 195a

M

Magne-gage 192a
Magnesium hydroxide, green liquor clarification with 79
Magnesium paper 191a
Maintenance department
  Organization and functions 187
  Records needed 188
Malaria, war problem..... 21
Management, relation to instrumentation 35
Manometer, differential 159
Melamine-formaldehyde resins 41
Mechanical pulp
  Ink penetration, effect of rosin.... 201a
  Water penetration, effect of rosin.. 201a
Mersize 201a
Methylhydroxylamine method for CO and CO_2H groups 227
Moisture, effect on curl..... 7

N

Newspapers 193a
Nitrogen permeability, method for..... 104
Nylon, gas permeability..... 102

O

Oidium lactis 136
Oldofrede process 193a
Oleic acid in tall oil..... 215a

Oxycellulose
Carbonyl group, estimation of..... 223
Preparation of 223
Oxygen permeability, method for..... 101

P

Packaging, coated papers, review..... 77
Parafilm, gas permeability..... 102
Paper
Apple wrap 141
Bursting strength, effect of acid-alum blends 210a
Butcher, petrolatum in..... 141
Carbon 142
Citrus fruit wraps..... 141
Clay coated, oil resistance of..... 209
Coated, structure 6
Coating, review 73
Cover stock, oil resistance of..... 210
Electricity conducting 191a
Folding strength, effect of acid-alum blends 210a
Glassine, gas permeability..... 102
Graphic arts developments..... 191a
Greaseproof, gas permeability..... 102
Ink penetration, factors in..... 198a
Ink penetration test, mechanism of 198a
Lamp shade 141
Lithographic, curling of..... 5
MM-system 191a
Parchment, gas permeability..... 103
Petrolatum, use of..... 141
Pork-loin wrap 141
Printers, future use by..... 1
Sulphite, gas permeability..... 103
Tracing 141
Uncoated, structure 5
Water penetration, factors in..... 198a
Waxed, gas permeability..... 103
White mineral oil in..... 141
Paper machine, moisture content of web, determination 192a
Paper mill
Efficiency factors 86
Instrumentation in 30
Maintenance department 187
Operating efficiency 86
Paper testing
Abrasion resistance 23
Crease retention 202
Densometer, elastic gasket for..... 235
Erasing quality 144
Fungicidal properties 179a
Ink penetration, mechanism of..... 198a
Moldability 202
Photoelectric absorption meter in... 210
Printability 209
Papermaking materials, cotton linters.. 93
Patent system, United States..... 81
Patents
Application, filing of..... 84
Functions of 81
Lawyer, role of..... 83
United States 58, 253
Petrolatum
Paper, use in..... 141
Properties 143
Photocomposing 194a
Photoelectric absorption meter..... 209
raphy 194a
Pigments
Titanium 41
Zinc sulphide 41
Plasticizers 42
Plastics, use in graphic arts..... 194a
Pliofilm, gas permeability..... 102
Polyethylene, gas permeability..... 102
Polystyrene, gas permeability..... 102
Polyvinyl alcohol, gas permeability..... 102
Polyvinyl butyral, gas permeability..... 102
Power plant
Operating pressures, relative value of 189
Supertherm system 192
Pressure regulator, steam turbine..... 173
Printability of paper, oil absorption as measure 209
Printing
Gravure 2
Lithographic 195a
Curl in 5
Electronographic press 3
Offset 2
Paper, future use of..... 1
Pressure in 2
Relief 2
Silk screen process..... 196a
Static electricity, effect of..... 3
Printing inks 192a
Drisoy (soy-bean oil) in..... 193a
Heatset 192a
Lecithin (soy bean) in..... 192a
Santocel in 192a
Silk screen process for glass..... 192a
Tall oil in..... 249
Tall oil products in..... 250
Thermoplastic 192a
Three-color standard 193a
Waxes for 192a
Printing plate, plastic..... 194a
Printing processes 193a
Pulp
Aspen neutral sulphite semichemical, bleaching 124
Black liquor pulping, effect of.... 19
Breaking length-fiber length index, ratio of 168a
Bulk-fiber length index ratio..... 168a
Burst factor-fiber length index, ratio of 168a
Consistency, effect in refining..... 27
Eastern white pine..... 48
Fiber length index, determination of 236
Fiber classification, relation of.. 241
Permanganate number, effect of black liquor on..... 16
Rag, fiber length index..... 170a
Semichemical
Bleached aspen, use in book papers 243
Bleaching with peroxide..... 124
Sugar maple, purification..... 186a
Sugar maple (sulphate)..... 185a
Sulphate, fiber length index..... 167a
Tear ratio-fiber length index, ratio of 168a
Viscose, sugar maple for..... 181a
Wettability 200a
Yellow birch 150
Pulp mill
Instrumentation in 30
Maintenance department 187
Pulp testing
Cellulose, determination of..... 203a
Fiber length index.....236, 167a
Pulping
Black liquor in..... 16
Cotton linters 95
Pulpwood
Aspen
Chemical properties 212
Sulphate process, continuous liquor flow in..... 213
Balsam, black liquor in pulping of 17
Douglas fir
Chemical properties 212
Sulphate process, continuous liquor flow in..... 213
Eastern white pine..... 43
Fiber dimensions 46
Hemlock, black liquor in pulping of 17
Pine, sulphate process, 1- and 2-stage 219a
Prehydrolysis of 133
Storage 88
Sugar maple
Chemical properties 184a
Sulphate process 184a
Viscose from 181a
Sulphite pulp, relation to..... 88
Yellow birch
Analysis 148
Glassine, use for..... 146

R

Rag pulp
Ink penetration effect of rosin..... 201a
Water penetration, effect of rosin.. 201a
Rayon industry, water requirements.... 234
Refiner
Disk, continuous 26
Power input 28
Refining
Continuous system 25
Freeness control in..... 27
Particle size and shape, effect of... 29
Repair shop 34
Research, graphic arts, 1945 ..... 197a
Rodent control, war problem..... 22
Rolls, metal covered..... 128
Rosin 39
Ink penetration of pulp, effect on.. 201a
Rubber, gas permeability..... 102

S

Santocel 192a
Saran resins
Chemical resistance 69
Coating with 68
Gas permeability 102
Physical properties 70
Uses 72
Scholler-I. G. Farben yeast method.... 137
Scholler-Seidel aerator 133
Scholler wood sugar process..... 132
Screening, sulphite pulp..... 91
Seal, adhesive strength, test of..... 10
Sealing glands, steam turbines..... 172
Semichemical pulp
Aspen, in book paper..... 245
Bleaching with peroxide..... 124
Silver *o*-nitrophenolate method for CO and CO_2H group..... 226
Sizing
Hard water, pH adjustment..... 208a
Hydrogen ion concentration, effect of 206a
Sulphuric acid, use of..... 205a
Soda ash 38
Sodium aluminate 39
Sodium hypochlorite bleach liquor, advantages of 37
Sodium peroxide 38
Aspen semichemical pulp, bleaching of 124
Sodium Silicate 39
Analysis 212a
Viscosity, determination of..... 213a
Soil, effect of lignin..... 255
Sorbitol 42
Specific gravity, definition of..... 159
Starch 40
Static electricity, effect on printing.... 3
Steam boiler
Circulation ratio 111
Dampers 185
Feed pumps for..... 110
Feed water supply..... 184
Forced circulation types..... 109
Operating pressure, selection of.... 190
Spreader stoker 183
Superchargers for 186
Steam turbines
Inspection 177
Maintenance 175
Steam requirements 174
Types 170
Stoker, spreader 183
Straw
Bale, specification for..... 123
Moisture content in bales, measurement of 123
Prehydrolysis of 133
Procurement 122
Strawboard industry, relation of TAPPI 129
Streambarker 61
Sulphate process
Black liquor, use of..... 16
Continuous liquor flow in..... 212
Pinewood 219a
Factors in 222a
Hot alkaline purification..... 219a
Two-stage, factors in..... 222a
Sugar maple 184a
Sulphate soap, collector for..... 221
Sulphite cooking acid..... 90
Sulphite process
Acid plant, role of..... 90
Digester room, importance of..... 89
Eastern white pine..... 43
Factors in 88
Multistage 46
Production records, value of..... 203
Sodium base 47
Wetting agent, effect of..... 46
Wood relation of..... 88
Yellow birch 147
Sulphite pulp
Bleaching 91
Classification 89, 92
Ink penetration, effect of rosin.... 201a
Screening 91
Washing 90
Water penetration, effect of rosin.. 201a
Sulphite waste liquor
Ethyl alcohol, economics of..... 105
Fermentation 67
Protein feed from..... 63
Yeast from 63
Sulphur 38
Sulphuric acid
Alum, use with, in sizing..... 209a
Sizing, use in..... 205a
Superchargers for steam boilers..... 186
Supertherm heating system..... 191
Synthetic resins 41

T

Tall oil
Analytical methods, need for..... 215a
Composition 174a
Derivatives 176a
Dipentaerythritol ester of maleic adduct 250
Fatty acids in..... 215a
Fractionation 175a
Market prices 173a
Markets 174a
Phytosterol from 177a
Printing ink, use in..... 249
Production 173a
Refining 175a
TAPPI
Activities 130
Fibrous Agricultural Residues Committee 122
New Orleans meeting..... 218
Organization 129
Strawboard industry, relation to .. 129
TAPPI Standard
T 17 m-46 ..... 217a
T 201 m-46 ..... 203a
T 220 m 131
T 446 m-46 202
T 476 sm-46 23
T 478 sm-46 144
T 632 m-46 ..... 212a
T 806 sm-46 10
Tensomatic sheet positioning device..... 191a
Titanium pigments 41
Tornesch yeast factory..... 136
Torula pulcherima 136
Torula utilis 136

U

U. S. Army
Engineering Division, activities of.. 20
Sanitary Corps, activities of..... 20
Urea-formaldehyde resins 41

V

Vegetable parchment, gas permeability.. 103
Vinylite, gas permeability..... 102
Viscometer, standardization 213a
Viscose, sugar maple pulp for..... 181a
Vogelbusch fermentor 137

W

Waldhof fermentor 133
Woldhof yeast method..... 138
Washing, sulphite pulp..... 91

Water
Cotton textile industry..... 234
Fine paper manufacture, requirements for 233
Food industries, requirements for.. 235
Industry requirements 233
Rayon industry 234
Surface 51
Industrial uses 55
Production 117
Supply 117
Temperature of 51
United States, resources of.... 54
Well systems 119
Water supplies, war problems..... 21
Water-vapor permeability
Isostatic method, possible use of.. 103
Saran resins 70
Wax sizes 42
Waviness 8
Wet strength, synthetic resins for..... 41
Wetting agents
Pulp wettability, effect on..... 200a
Sulphite process, effect on..... 46
White mineral oil
Paper, use in..... 141
Properties 142
Purification 142
Wood
See also Pulpwood
Cellulose, determination of 217a
Wood preparation, value of records.... 204
Wood room, role in sulphite process... 89
Wood sugar
Bergius process 132
Fermentation 134
Scholler process 132
Yeast from 135
Writing ink, standard..... 145

X

Xylan
Oxidation 226
Preparation 224

Y

Yankee drier, heat transfer in..... 157
Yeast
Growth, factors in..... 64
Sulphite waste liquor..... 63
Torula, analysis 63
Wood sugar as source..... 135
Yellow birch fir glassine paper..... 146

Z

Zinc sulphide 41

Canada's Mills Promise 200,000 Tons More

(Continued from page 8)

able economic system founded on responsible freedom and vigorous enterprise."

Top highlight of the annual meeting of the Canadian Pulp and Paper Association was the announcement of an international timber conference to be held at Marianske Lazne, Czechoslovakia, made by Dr. Egon Glesinger, chief of the Forest Products Branch of the Food and Agricultural Organization of United Nations; it is to begin April 28th. The conference has been called primarily to deal with European reconstruction programs but it is hoped to lay the basis for the establishment of a long range program for forests and forest industries of the world. Countries to be invited will include all European countries, not excepting Russia, as well as the major wood exporting countries in the Western hemisphere; control authorities in European countries under Allied jurisdiction will also be asked to send representatives. Dr. Glesinger also indicated that this year's conference will be followed by further regional forest conferences for America and the Far East, looking to a world conference.

Looking to greater world production, Dr. Glesinger, in the course of an address to the Woodlands Section of the association, urged the full use of raw material and the close cooperation of saw mills and pulp mills in using mill waste. With the development of research he felt that forest industries would eventually lead all other world industries in volume of production. Outlining the work of FAO, he said that forest problems would occupy a large part of that organization's work.

Referring to the Canadian pulp and paper industry, Dr. Glesinger referred to its contribution towards the maintenance of world democracy in the maintenance of a free press through exports to more than forty countries —representing three out of every five newsprint pages printed throughout the world. Canada, he said, was one of the few countries which had come through the war with her forest resources in good shape. In this she war fortunate, for the forests of many countries had been sadly depleted. He predicted that with the many valuable uses for wood products, particularly pulp, and the thousands which he believed would be discovered the day may not be too far distant when Canada will look upon her forests as not only her most valuable resource but more valuable than the rest of her resources combined.

Dealing with world timber needs, Dr. Glesinger suggested that the industry should start by using the crop as a whole and then pick some higher grades, instead of proceeding by the reverse method as is being done now. He pointed out that there are 8,000,000,000 acres of forest in the world and the 200,000,000 million tons that result from these limits he described as ridiculous; he advocated conservation but expressed the opinion that our forests are not being used to the best advantage. He cited Sweden as an example of how well-harvested trees can be fully utilized.

In Canada the balance between the number of tons of lumber and pulp was good, but it could be improved; a better balance would see less lumber and more pulp. He mentioned alcohol, plastics, yeast, fibers, and "maybe gasoline," as other uses to which pulpwood could be applied.

Looking to the larger picture, Dr. Glesinger foresaw an era of pulp expansion and to this end the necessary machinery was being set up—national plans, regional plans, and finally a world program.

Woodland Sections Awards

At a luncheon meeting of the Woodlands Section of the Canadian Pulp and Paper Convention, the following awards were presented:

J. A. Bothwell award—medal and $100—best paper on forest conservation—E. L. Howie, Fraser Cos., Edmunston, N. B., for booklet: "Forest Fire-Fighters Guide."

Price Brothers & Co. award—$100 —best paper on subjects other than logging mechanization—Ivar F. Fogh, C.I.P. Co., Three Rivers, P. Q., for paper: "Log Flumes as an Aid in the Driving of Small Streams."

Ontario Paper Co. award—$100 and scroll or fob—best paper on logging mechanization—J. A. Michaud, Consolidated Paper, Grand Mere, P. Q., for paper: "A Pulpwood Loading Plant for Rail Shipment."

Elwood Wilson award—plaque—individual who made best industrial application of Woodlands Section study or project—Geoffrey Fitz Randolph: Organization of Woods Labor Training, Brown Corporation, Quebec, P. Q.

Technical Section Awards

At the luncheon meeting of the Technical Section of the Canadian Pulp and Paper Convention, these awards were presented:

Technical Section service award for 1946—bronze medal—awarded to Technical section committee chairman who made the most outstanding contribution to the work of the section. Won by F. B. Bjornlund of Howard Smith Paper Mills Ltd., Cornwall, Ont., chairman of 1946 Alkaline Pulping Committee. Donated by R. L. Weldon, Bathurst Power and Paper Co., Montreal.

Howard Smith Medal—awarded to junior member of section who submitted the best paper presented at 1946 annual meeting. Won by Arne Hellstrom, Paper Machinery Ltd., Montreal, for his paper on: "The Use of Absorption Towers for the Recovery of Pressure Gases." Donated by Harold Crabtree, Howard Smith Paper Mills Ltd., Montreal.

Weldon Medal—awarded to senior member of section who submitted the best paper presented at 1946 annual meeting. Awarded to Dr. J. N. Swartz, Howard Smoth Paper Mills Ltd., Cornwall, Ont., for his paper of "Bleaching of Sulphite Pulp." Donated by Arthur L. Dawe, Consolidated Paper Corporation, Montreal.

S. L. deCarteret, vice president and general manager, Canadian International Paper Company, Montreal, who is a former wartime deputy minister of National Defence for Air was made chairman of the Executive Board for 1947. Others include: Aubrey Crabtree, and R. L. Weldon, vice chairmen; C. R. Whitehead, and Hugh M. Lewis, are honorary vice-chairmen. Members of the Executive Board include, D. W. Ambridge, L. J. Belnap, Geo. W. Brown, Wentworth Brown, Geo. L. Carruthers, Paul E. Cooper, Harold S. Foley, P. M. Fox, G. Gordon Gale, R. A. Hayward, C. H. L. Jones, R. P. Kernan, E. M. Little, A. Barnet Maclaren, J. R. S. McLernon, F. G. Robinson, J. Pierre Rolland, Hon. W. Earl Rowe, C. H. Sage, A. A. Schmon, E. Howard Smith and John Stevens, Jr.